

user's guide

To find an answer to a question, select one of the topics below:

- [notices](#)
- [special features](#)
- [getting started](#)
- [connectivity](#)
- [printing](#)
- [maintenance](#)
- [troubleshooting](#)
- [specifications](#)

notices

- [notices and acknowledgements](#)
- [terms and conventions](#)
- [accessibility](#)

notices and acknowledgements

hewlett-packard company notices

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terms and conventions

The following terms and conventions are used in the *user's guide*.

terms

The HP Deskjet printer may be referred to as the **HP printer** or **printer**.

symbols

The > symbol guides you through a series of software steps. For example:

Click [File](#) > [Print](#).

cautions and warnings

A **Caution** indicates possible damage to the HP Deskjet printer or to other equipment. For example:

Caution! Do not touch the print cartridge ink nozzles or copper contacts. Touching these parts will result in clogs, ink failure, and bad electrical connections.

A **Warning** indicates possible harm to you or to others. For example:



Warning! Keep both new and used print cartridges out of the reach of children.

icons

A **Note** icon indicates that additional information is provided. For example:



For great results use HP products.

A **Mouse** icon indicates that additional information is available through the **What's This?** help feature. For example:



To find more information about options on each tab screen, point to an option and click the right mouse button to display the **What's This?** dialog box. Click **What's This?** to view information about the selected option.

A **Do Not** icon indicates that an action is not recommended.



Do not clean the interior of the printer.

accessibility

Your HP printer provides a number of features that make it accessible for people with disabilities.

visual

The printer software is accessible for users with visual impairments or low vision through the use of Windows accessibility options and features. It also supports most assistive technology such as screen readers, Braille readers, and voice-to-text applications. For users who are color blind, colored buttons and tabs used in the software and on the HP printer have simple text or icon labels that convey the appropriate action.

mobility

For users with mobility impairments, the printer software functions can be executed through keyboard commands. The software also supports Windows accessibility options such as StickyKeys, ToggleKeys, FilterKeys, and MouseKeys. The printer doors, buttons, paper trays, and paper guides can be operated by users with limited strength and reach.

support

For more details about the accessibility of this product and HP's commitment to product accessibility:

- Visit HP's Web site at: www.hp.com/accessibility
- Email HP at: accessibility@hp.com

special features

Congratulations! You have purchased an HP Deskjet printer that is equipped with several exciting features:

- **Built-in networking capabilities:** Connect to either a [wired](#) or a [wireless](#) network without using an external print server.
- **Borderless printing:** Use the entire page surface when printing photos and cards using the [borderless printing](#) feature.
- **Six-ink upgradeable printing:** Enhance photo printing with a [photo print cartridge](#).
- **Digital photo printing:** Enhanced [digital photo printing](#) capabilities.
- **Ink-backup mode:** [Ink-backup mode](#) lets you continue printing with one print cartridge when the other print cartridge has run out of ink.
- **Print multiple pages on a single sheet of paper:** Use the [printer software](#) to print multiple pages on a single sheet of paper.
- **Print Cancel button:** Cancel print jobs at the touch of a [button](#).
- **Optional Two-Sided Printing Accessory:** Purchase a [Two-Sided Printing Accessory](#) to print two-sided documents automatically.



wired ethernet networking

For setup information, click one of the following options:

- [ethernet basics](#)
- [installing the printer on an ethernet network](#)

For a description of the printer's Ethernet feature, click one of the following options:

- [ethernet lights](#)
- [network button](#)
- [network configuration page](#)
- [embedded web server \(EWS\)](#)

Other information:

- [resetting the printer to the factory defaults](#)
- [troubleshooting](#)
- [glossary](#)

ethernet basics

The printer's built-in Ethernet feature allows you to connect the printer directly to a [10/100 Base-T](#) Ethernet network without the aid of an external print server.

To install the printer on an Ethernet network, follow these [instructions](#).

hardware

hubs, switches, and routers

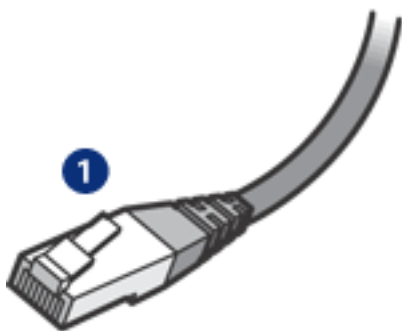
On an Ethernet network, devices, such as computers and printers, are each connected to a network [hub](#), [switch](#), or [router](#).

Hubs, switches, and routers may look similar, but there are important differences:

- Hubs are passive—other devices on the network plug into the hub in order to communicate with one another. A hub does not manage the network.
- A switch allows devices on a network to communicate directly with one another in a smooth and efficient manner. A switch monitors and directs network traffic in order to allow each transmission the most possible bandwidth. By monitoring network traffic, a switch minimizes collisions and maximizes speed.
- Routers primarily connect different networks (for example, connecting a home network to the Internet). Routers are active. Routers have network administration tools, such as [firewalls](#) and [DHCP](#). A router can act as a [gateway](#), while a hub and a switch cannot.

cables

Use a CAT-5 Ethernet cable to connect the printer to an Ethernet network. Ethernet cables have an RJ-45 plug.



1. RJ-45 plug

network communication

TCP/IP

Devices on a network communicate with one another using a “language” called a [protocol](#). The printer is designed to operate on networks that use a popular protocol called [TCP/IP](#).

IP Address

Each device on a network identifies itself with a unique IP address. Most networks use a software tool, such as [DHCP](#) or [AutoIP](#), to automatically assign IP addresses.

internet connections

Networks may or may not be connected to the Internet.

If you place the printer on a network connected to the Internet, it is recommended that you use a [gateway](#) so that the printer's [IP address](#) is assigned through [DHCP](#).

A gateway can either be a [router](#) or a Windows computer running [Internet Connection Sharing \(ICS\)](#). For more information about ICS, see the documentation that came with the Windows computer.

ethernet network examples

To see some examples of Ethernet networks, click [here](#).

printing

Computers on the network send print jobs directly to the printer, which prints them in the order received.

The printer can accept print jobs sent simultaneously from four users.

For example, if five users each send a print job to the printer at the same time, the printer accepts four of the print jobs and rejects the fifth. The user who sent the fifth print job should wait a few minutes and then resend the print job.

networking glossary

[numbers](#) [a](#) [b](#) [c](#) [d](#) [e](#) [f](#) [g](#) [h](#) [i](#) [j](#) [k](#) [l](#) [m](#) [n](#) [o](#) [p](#) [q](#) [r](#) [s](#) [t](#) [u](#) [v](#) [w](#) [x](#) [y](#) [z](#)

numbers

10/100 Base-T: A technical term for Ethernet. 10/100 refers to the speed at which the Ethernet network functions. 10 indicates 10 megabits per second (Mb/s) for normal Ethernet, and 100 indicates 100 Mb/s for Fast Ethernet.

802.11a: A type of wireless networking that provides up to 54 Mb/s transmission in the 5 GHz band.

802.11b: A type of wireless networking that provides up to 11 Mb/s transmission (with a fallback to 5.5, 2 and 1 Mb/s) in the 2.4 GHz band.

802.11g: A type of wireless networking that provides up to 54 Mb/s transmission in the 2.4 GHz band.

a

Ad hoc network: A type of wireless network in which devices directly communicate with each other rather than through a Wireless Access Point (WAP). Ad hoc networks are typically small and simple (for example, two wireless PCs or a wireless PC and a wireless printer). Performance on these types of networks can degrade if more than six devices are on the network. Ad hoc networks are also known as peer-to-peer networks, independent basic service stations (IBSS), or direct-connect wireless networks.

Authentication: Authentication is a wireless network security strategy. On a network with authentication, devices use a shared key as a password and communicate only with devices that know the key. Unlike [WEP](#), authentication does not encrypt the data sent between wireless devices. However, authentication can be used in conjunction with WEP. Authentication keys and WEP keys can be identical.

AutoIP: A process by which a device on a network automatically assigns an IP address to itself.

b

BOOTP: Bootstrap Protocol (BOOTP) is an Internet protocol that enables a device to discover its own IP address, the IP address of a BOOTP server on the network, and a file to be loaded into memory to boot the machine. This enables the device to boot without requiring a hard or floppy disk drive.

Broadcast packet: A packet sent from one device on a network to all devices on the network.

c

Channel: One of several pre-set frequencies at which 802.11b-enabled devices communicate in order to reduce interference. The number of channels available varies by country/region.

d

DHCP (Dynamic Host Configuration Protocol): A protocol used to automatically assign an IP address to each device on a network.

e

EAP: Extensible Authentication Protocol (EAP) is a general protocol for authentication that also supports multiple authentication methods, such as token cards, one-time passwords, certificates, and public key authentication.

Encryption: A network security that encodes the data sent across a wireless network making the data unintelligible to eavesdroppers. The printer supports [WEP](#) and [WPA](#).

Encryption keys: A sequence of characters or digits that a wireless device uses to encode data. Encryption keys can be static (as they are in [WEP](#)) or dynamic (as they are in [WPA](#)).

Ethernet: A popular form of wired computer networking for Local Area Networks.

Ethernet cable: There are two types of Ethernet cables. A straight-through cable is the most common and is used to connect devices on a network to a hub or router. A crossover cable is used to connect two devices that have Ethernet ports but that are not hubs or routers. Use a CAT-5 straight-through cable with an RJ-45 plug to connect the printer to an Ethernet network.

f

Firewall: A combination of hardware and software tools that protects a network from unwanted entry.

g

Gateway: A dedicated device (router or computer) that connects two different networks. For example, a computer on an Ethernet network may act as a gateway between the network and the Internet.

h

Host Name: The name by which the printer identifies itself on the network. The printer's host name appears on the network configuration page. Use the host name to open the printer's embedded Web server (EWS).

Hub: A simple device that acts as the center of an Ethernet network. Other devices on the network are connected to the hub.

i

ICS (Internet Connection Sharing): A Windows program that allows a computer to act as a gateway between the Internet and a network. ICS uses DHCP to assign IP addresses. See Windows documentation for more information about ICS.

Internet Sharing: A Macintosh OSX program that allows a computer to act as a gateway between the Internet and a network. See Macintosh documentation for more information about Internet Sharing.

IP address (Internet Protocol address): A unique number that identifies a device on a network. The IP address is often automatically assigned by DHCP or AutoIP. However, a device can be manually assigned a static IP address.

Infrastructure network: A type of wireless network in which devices communicate with each other through a Wireless Access Point (WAP), such as a wireless network hub, router, or gateway.

j

k

l

LAN (Local Area Network): A high-speed type of computer network that connects devices that are a relatively short distance from one another. An Ethernet network is one type of LAN.

m

MAC address (Media Access Control address): The hardware address for a device on a network. The printer's MAC address appears on the network configuration page.

Mb/s (megabits per second): The measure for the rate at which a network functions. For example, 1 Mb/s equals 1,000,000 bits per second (or 125,000 bytes per second).

mDNS: As an alternative to a Domain Name Server, a device issues a Multicast Domain Name Server (mDNS) notification to provide information regarding its service. The notification includes the type of service (such as printing), the name of the service (such as "your printer"), IP and port addresses, and other necessary information. Each device on the network receives the notification and stores the information in a personal DNS server.

n

Network name: A network name is an alphanumeric, case-sensitive character string that provides basic access control to a wireless network. A network name is also known as a "Service Set Identifier (SSID)".

o

p

Packet: A message sent from one device on a network to other devices on the network.

Protocol: A language that devices on a network use to communicate with each other. A popular network protocol is TCP/IP.

q

r

RJ-45: The type of plug at the end of an Ethernet cable.

Router: A complex networking device that directs packets from one network to another network. A router can act as a gateway between a LAN and the Internet.

s

Static IP address: An IP address that is manually assigned to a device on a network. A static IP address remains fixed until changed manually. Alternative methods for assigning IP address are DHCP and AutoIP.

Subnet: A small network that acts as part of a large network. It is recommended that the printer and the computers that use the printer all be on the same subnet.

Subnet mask: A number that identifies the IP addresses that belong to a subnet.

Switch: A network device that manages network traffic in order to minimize collisions and maximize speed.

t

TCP/IP: Transmission Control Protocol/Internet Protocol (TCP/IP) is the network communication protocol used on the Internet. The printer's built-in networking feature supports LANs that use TCP/IP.

TKIP: See WPA. Temporal Key Integrity Protocol (TKIP)

u

Unicast packet: A packet sent from one device on a network to another device on

the network.

v

w

WEP:Wired Equivalent Privacy (WEP) provides security by encrypting data sent over radio waves from one wireless device to another wireless device. WEP encodes the data sent across the network making the data unintelligible to eavesdroppers. Only devices that share the same WEP settings as the printer will be able to communicate with the printer. WEP depends on encryption keys that are static and provides less security than [WPA \(TKIP\)](#).

WEP key:A WEP key, or encryption key, is a sequence of alphanumeric characters or hexadecimal digits. After creating a WEP key, you must remember it or store it in a secure location. You may not be able to retrieve the WEP key if you lose it. A WEP key is either 64 or 128 bits long. The first 24 bits of the key are provided automatically. When creating the WEP key, the person creating the key provides the remaining bits (40 bits in the case of a 64-bit key, or 104 bits in the case of a 128-bit key).

Wireless Access Point (WAP):A Wireless Access Point (WAP) is a device through which devices (for example, computers and printers) on an infrastructure wireless network communicate with one another. A WAP is also called a base station.

Wireless profile:A wireless profile is a collection of wireless network settings that applies to a particular wireless network. For example, a wireless LAN card can have one profile for a home network and another profile for an office network. When installing a device on a network, be sure to select the appropriate profile.

WPA: WPA provides security by encrypting data sent over radio waves from one wireless device to another wireless device and by controlling access to network resources through authentication protocols. Only devices that share the same WPA settings as the printer will be able to communicate with the printer. WPA uses encryption keys that change frequently. WPA provides better security than [WEP](#). WPA is also called TKIP.

x

y

z

wired equivalent privacy (WEP)

Wired Equivalent Privacy (WEP) provides security by encrypting data sent over radio waves from one wireless device to another wireless device.

WEP encodes the data sent across the network making the data unintelligible to eavesdroppers. Only devices that share the same WEP settings as the printer will be able to communicate with the printer.

For example, if the printer's network uses WEP, only devices that have the same WEP settings as the printer will be able to use the printer.

WEP is a network feature

WEP is an optional wireless network feature. Not all wireless networks use WEP.

Configure the printer for WEP only if the printer's network uses WEP. The printer's WEP settings **must** match the network's settings. If your network has WEP, you must use an Ethernet cable to connect the printer to the network in order to install the printer software.

If the printer's network does not use WEP, then do not configure the printer to use WEP.

If you do not know if your network uses WEP, consult the configuration utility for your computer's NIC card or your network's [Wireless Access Point \(WAP\)](#).

WEP keys

Devices on a WEP-enabled network use [WEP keys](#) to encode data.

After creating a set of WEP keys, record and store the keys in a secure location. You may not be able to retrieve the WEP keys if you lose them.

Caution! If you lose the WEP keys, you will not be able to add a new device to your network without reconfiguring the WEP settings for every device on the network.

A WEP-enabled network might use multiple WEP keys. Each WEP key is assigned a key number (such as Key 2). Each device on the network must recognize all the network's WEP keys and the key number assigned to each WEP key.

configuring the printer to use WEP

Use the printer's [embedded Web server \(EWS\)](#) to configure the printer to use WEP.



You can also use the printer software CD to configure the printer's WEP settings. However, the printer software CD only allows you to set one WEP key. If your network uses multiple WEP keys, then use the printer's embedded Web server to configure the printer's WEP settings.

embedded web server (EWS)

The embedded Web server (EWS) provides a simple way to manage your printer on a network.

Use the printer's EWS to do the following:

- Check the printer's status.
- Adjust the printer's network configuration.
- Check estimated ink levels in the print cartridges.
- View network statistics.
- Configure the printer's [wireless security settings](#).
- Visit HP's Web site for support information and to purchase supplies.



Caution! It is recommended that the printer and the computers that use it be on the same subnet. Printer installation across subnets can be problematic depending on the type of router used.

Before using the printer's internal Web page, verify that the printer and the computer are powered on and connected to the network.

Follow these steps to open the printer's internal Web page:

1. Launch your Internet browser.
Use Microsoft Internet Explorer 5.0 or higher or Netscape 4.75 or higher.
2. Enter either the printer's [IP address](#) or [host name](#) in the browser's address box.



If the printer is on a different [subnet](#) than your computer, enter the printer's IP address (for example: <http://192.168.1.1>) in the browser's address box to open the embedded Web server. Also, if your computer uses a proxy server to access the Internet, you might need to configure your browser to by-pass the proxy server in order to access the EWS.

If you don't know the printer's IP address or host name, print a network configuration page (for instructions, click [here](#)).



For instructions on using the printer's EWS, see the online help. To open the online help, click [Help](#) under the [Other Topics](#) heading.

Caution! Use caution when changing the print server' swireless network settings; you may lose your connection. If you lose your connection, you may need to use the new settings to reconnect. If the printer loses its network connection, you may need to reset it to factory defaults and reinstall the software.

wireless security

The printer offers these options for wireless security:

- [authentication](#)
- Encryption
 - [WEP](#)
 - [WPA \(TKIP\)](#)

authentication

Authentication verifies the identity of a user or device before granting access to a network, making it more difficult for unauthorized users to access network resources.

authentication is a network feature

Authentication is an optional wireless network feature. Not all wireless networks use authentication.

Configure the printer for authentication only if the printer's network uses authentication. The printer's authentication settings **must** match the network's settings.

If the printer's network does not use authentication, then do not configure the printer to use authentication.

If you do not know if your network uses authentication, consult the configuration utility for your computer's NIC card or your network's [Wireless Access Point \(WAP\)](#).

types of authentication

available choices

The printer supports four types of authentication.

authentication type	communication mode	available encryption strategies
Open System	Infrastructure or ad hoc	None or WEP
Shared Key	Infrastructure	WEP
EAP/PSK	Infrastructure	WPA (TKIP)
802.1x 802.1x is best suited for enterprise networks.	Infrastructure	WPA (TKIP) or WEP

descriptions

Each type of authentication has its benefits and limitations.

authentication type	description	benefits	limitations
Open System	Devices on a network do not identify themselves.	Least complicated strategy.	Provides no protection against unauthorized users.
Shared Key	Devices use a shared master secret to identify themselves as authorized members of the network.	Convenient to use in conjunction with WEP since a WEP can serve as the shared authentication key.	All devices must have the key. The shared key does not change automatically.
EAP/PSK	Devices use a single key to identify themselves as authorized members of the network and to generate an encryption key.	The Pre-Shared Key and the encryption keys are not identical. Allows smaller networks to use WPA (TKIP) without the need for an authorization server.	Not as robust as 802.1x. All devices must have the key.

802.1x	<p>A dedicated authentication server verifies the identity of a user or device requesting access to the network before granting that access.</p> <p>The authentication server uses one of several authentication protocols.</p>	Highest level of security.	Best suited for enterprise networks. May be too expensive for smaller networks.
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configuring the printer to use authentication

Use the printer's [embedded Web server \(EWS\)](#) to configure the printer to use authentication.



If your network is an Open System or uses Shared Key authentication, you can use the printer software CD to configure the printer's authentication settings.

Wi-Fi Protected Access (WPA)

Wi-Fi Protected Access (WPA) provides security by doing the following:

- Encrypting data sent over radio waves from one wireless device to another wireless device
- Controlling access to network resources through authentication protocols

WPA is also known as "TKIP" (Temporal Key Integrity Protocol).

Only devices that share the same WPA settings as the printer will be able to communicate with the printer.

For example, if the printer's network uses WPA, only devices that have the same WPA settings as the printer will be able to use the printer.

WPA provides better security than [WEP](#).

WPA is a network feature

WPA is an optional wireless network feature. Not all wireless networks use WPA.

Configure the printer for WPA only if the printer's network uses WPA. The printer's WPA settings must match the network's settings.

If the printer's network does not use WPA, then do not configure the printer to use WPA.

If you do not know if your network uses WPA, consult the configuration utility for your computer's NIC card or your network's [Wireless Access Point \(WAP\)](#).

encryption keys

WPA uses encryption keys to encode data. WPA automatically changes the encryption keys after a certain time interval, thus making the wireless network less vulnerable to intrusion.

The method by which WPA generates encryption keys depends on the type of authentication used on the network.

configuring the printer to use WPA

Follow these steps to configure the printer to use WPA:

1. Open the printer's embedded Web server (EWS) (for instructions, click [here](#)).
2. Click the [Networking](#) tab.
3. On the [Networking](#) page, click the [Wireless](#) tab.

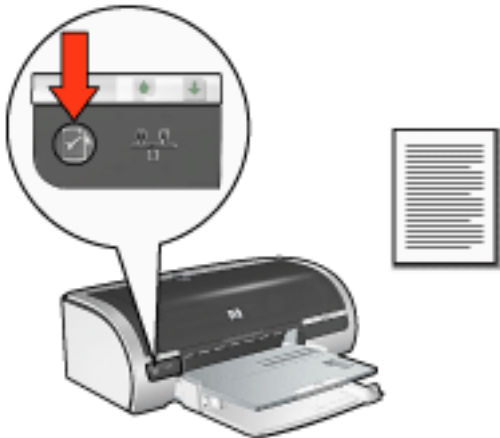
4. Under the [Authentication](#) heading, click the [Advanced Configuration](#) button.
5. Select [Infrastructure](#), then click [Next](#).
6. Select the network name (SSID) or enter the network name, then click [Next](#).
7. Select one of the following options, then click [Next](#) to supply the necessary information depending on the option selected:
 - **EAP/802.1x**: Requires the use of an authentication server on your network. EAP/802.1x is best suited for enterprise networks. After clicking [Next](#), you will supply the server information, select an authentication method, and complete an authentication certificate.
 - **EAP/PSK**: Requires that all devices on a network share a pass phrase that is used to generate encryption keys. After clicking [Next](#), you will supply the pass phrase.
8. Review the configuration summary, then do one of the following:
 - If the settings are correct, click [Finish](#), then close the EWS.
 - If the settings are incorrect, click the Back button to return to the necessary page. Correct the data, click [Next](#) until the configuration summary appears, then repeat step **8**.

network configuration page

The printer's network configuration page supplies useful information about the printer's network connection.

printing a network configuration page

While the printer is powered on and idle, press the printer's [Network](#) button once.



If the printer has just been connected to a network, wait a few minutes before printing the network configuration page to allow the printer to obtain valid settings.

understanding the network configuration page

The network configuration page lists the following information that you may frequently need to know:

general information

General information applies to both Ethernet and wireless networks:

item	meaning
Status	The printer's network status: <ul style="list-style-type: none">• Ready: The printer is ready to print.• Offline: The printer is not connected to a network.

Network Connection Type	<p>The type of network the printer is connected to:</p> <ul style="list-style-type: none"> • Wired: The printer is connected to an Ethernet network. • Wireless: The printer is connected to a wireless network. • Disabled: The printer is not connected to a network.
URL	<p>The address to use in order to open the printer's embedded Web server.</p>
Hardware Address	<p>The printer's Media Access Control (MAC) address.</p>
Firmware Version	<p>Revision number of the printer's internal software.</p> <p>This item may be requested by HP Service and Support.</p>
Host Name	<p>The printer's host name on the network.</p>
IP Address	<p>The printer's current IP address on the network.</p>
Subnet Mask	<p>The printer's subnet mask.</p>
Default Gateway	<p>The printer's gateway address.</p>

<p>Config Source</p>	<p>How the printer obtained its IP address:</p> <ul style="list-style-type: none"> • DHCP • Automatic: AutoIP • Manual: Static IP address • BOOTP
<p>DNS Server</p>	<p>The IP address of the printer's domain name server. Not Specified means that no IP address has been set. This setting does not apply to the printer.</p>
<p>mDNS Service Name</p>	<p>The printer's mDNS service name on the network.</p> <p>This name is used by Apple Rendezvous to identify the printer on Mac OS X v10.2.3 and higher.</p>
<p>Admin Password</p>	<p>Indicates whether the printer's embedded Web server is password protected.</p> <ul style="list-style-type: none"> • Set: A password is required. • Not Set: A password is not required.
<p>Link Config</p>	<p>The network link configuration:</p> <ul style="list-style-type: none"> • 802.11b • 10T-Full • 10T-Half • 100TX-Full • 100TX-Half

wireless information

Wireless information applies to only wireless networks:

item	meaning
Wireless Status	<p>The printer's wireless network status:</p> <ul style="list-style-type: none">• Ready: The printer is ready to print.• Initializing: The connection to the wireless network is being established.• Scanning: The printer is searching for the network name (SSID) to which it has been configured.• Disabled: The wireless radio is off and the printer is connected to an Ethernet network.• Error: The printer is unable to gain access to an infrastructure network. For troubleshooting, click here.
Message	<p>A message indicating the status of the printer's wireless connection:</p> <ul style="list-style-type: none">• No signal detected: The printer cannot detect a signal from a Wireless Access Point (WAP) on an infrastructure network.• Scanning for SSID: The printer is searching for the network name (SSID) to which it has been configured.• Authentication in progress: The printer is in the process of gaining access to the network through authentication.• Authentication failed: The printer's authentication settings were not accepted or

	<p>recognized by the network.</p> <ul style="list-style-type: none"> • Encryption required: The network to which the printer is trying to gain access requires encryption. The printer's encryption settings must match those of the network.
communication mode	<p>The communication mode to which the printer is configured.</p> <ul style="list-style-type: none"> • Infrastructure • Ad hoc
Network Name (SSID)	<p>The SSID setting to which the printer is set.</p>
Signal Strength	<p>The strength of the 802.11 radio signal the printer is receiving:</p> <ul style="list-style-type: none"> • 1 through 5: 5 indicates an excellent signal; 1 indicates a poor signal. • No Signal: The printer is receiving no radio signal. For troubleshooting, click here. • Not applicable: The printer is set to ad hoc communication mode or the wireless network is disabled. • [blank]: The printer is scanning for an SSID.
Access Point HW address	<p>The MAC address of the Wireless Access Point (WAP) for the printer's network. This setting applies only to infrastructure networks. Not applicable means that the printer is set to ad hoc communication mode.</p>

Channel	<p>One of several pre-set frequencies at which 802.11b-enabled devices communicate in order to reduce interference.</p> <p>The number of channels available varies by country/region.</p> <p>Not applicable means that the wireless network is disabled.</p>
authentication type	<p>The printer's authentication setting:</p> <ul style="list-style-type: none">• Open System: No authentication is being used.• Shared Key: The printer is using a WEP key for authentication.• LEAP, PEAP, EAP-TLS, EAP-MD5, and EAP-TTLS: High-level authentication protocols for enterprise networks.• EAP-PSK: EAP authentication that uses a Pre-Shared Key (PSK). Used as part of WPA for small networks.• None: No authentication is in use.• Other: The network uses another authentication protocol.

Encryption	<ul style="list-style-type: none"> • 64-bit WEP: Printer is configured with a five-character or 10-digit WEP key. • 128-bit WEP: Printer is configured with a 13-character or 26-digit WEP key. • Dynamic: Dynamic encryption is being used with WEP and/or WPA. • None: No encryption is being used.
WPA	Indicates whether WPA is enabled or disabled. WPA may also be known as TKIP .
Total Packets Transmitted	<p>Number of packets sent without error.</p> <p>This item may be requested by HP Service and Support.</p>
Total Packets Received	<p>Number of packets received without error.</p> <p>This item may be requested by HP Service and Support.</p>
Bad Packets Received	<p>Number of packets sent with errors.</p> <p>This item may be requested by HP Service and Support.</p>

wireless communication problems

Print a network configuration page (for instructions, click [here](#)).

If the network configuration page **does not** print, verify the following:


- The printer is set up and powered on
- The print cartridges are installed correctly (for instructions, click [here](#))
- The printer is on and the paper tray is loaded
- The printer is free of paper jams

If any of the above are problems, then click [here](#).

If the network configuration page **does** print, try the following steps:

check the wireless status light

Look at the printer's [wireless status light](#):

if the wireless status light is...	then do this...
<p>On</p> 	<p>Follow these steps.</p>

Off



Verify the following:

- An [Ethernet cable](#) is not connected to the printer. Connecting an Ethernet cable to the printer automatically turns off the wireless radio. Unplug the cable.
- The printer is plugged in.

wireless status light is on

If the wireless status light is on, try reprinting the document, then look at the printer's wireless communications light:

if the wireless status light...

then...

Flashes



The printer's wireless communications feature is operating correctly. Try these [solutions](#), again.

Does not flash



The wireless radio is functioning but the printer and the computer cannot communicate.

- The printer's network settings do not match the settings for your network. Follow these [steps](#).
- The computer might be set to the wrong wireless profile. Follow these [steps](#).
- A personal software firewall might block communication between the printer and the computer. Follow these [steps](#).

printer's network settings do not match the settings for the network

The printer's network settings must match those of your network.

printer has the wrong network settings

1. Do one of the following to find the settings for your network:

if the printer's communication mode is...	then...
Infrastructure network	Open the Wireless Access Point's (WAP) configuration utility.
Ad hoc network	Open the configuration utility for the network card installed in your computer.

2. Compare the network's settings to those that appear on the printer's network configuration page. Note any differences. Possible problems include:

problem	solution
The WAP filters hardware addresses (MAC addresses)	Follow these steps .
<p>One of these settings in the printer might be incorrect:</p> <ul style="list-style-type: none"> ○ communication mode ○ Network Name (SSID) ○ Channel (Ad hoc networks only) ○ authentication type ○ Encryption ○ WPA (TKIP) 	Follow these steps .

3. Reprint the document.

If the document still does not print, then reset the printer to its factory defaults (for instructions, click [here](#)) and use the printer software CD to reinstall the printer software.

computer's wireless card is set to the wrong wireless profile

A [wireless profile](#) is a set of network settings unique to a given network. A single wireless card might have several wireless profiles (for example, one for a home network and one for an office network).

Open the configuration utility for the network card installed on your computer and verify that the profile selected is the profile for the printer's network. If not, select the correct profile.

the radio signal is weak

If the printer is printing slowly, then the radio signal might be weak. Look at the network configuration page. If the [Signal Strength](#) is 1 or 2, the follow these guidelines.

reducing interference in a wireless network

The following tips will help reduce the chances for interference in a wireless network:

- Keep the wireless devices away from large metal objects, such as filing cabinets, and other electromagnetic devices, such as microwaves and cordless telephones, as these objects can disrupt radio signals.
- Keep the wireless devices away from large masonry structures and other building structures as these objects can absorb radio waves and lower signal strength.
- For an infrastructure network, position the WAP in a central location in line of sight with the wireless devices on the network.
- Keep all wireless devices on the network within range of one another.

a personal software firewall is blocking communication between the printer and the computer

The personal software firewall is a security program that protects a computer from intrusion. However, the personal firewall might block communication between the computer and the printer.

If you cannot communicate with the printer, try disabling the personal firewall. If you are still unable to communicate with the printer, then re-enable the firewall.

If disabling the firewall allows you to communicate with the printer, you might want to assign the printer a static IP address and then re-enable the firewall. To assign the printer a static IP address, see the *Network Guide* that came with the printer.

the wireless access point filters MAC addresses

MAC filtering is a security feature in which a [Wireless Access Point \(WAP\)](#) is configured with a list of [MAC addresses](#) (also called "hardware addresses") of devices that are allowed to gain access to the network through the WAP.

If the WAP does not have the hardware address of a device attempting to access the network, the WAP denies the device access to the network.

If the WAP filters MAC addresses, then the printer's MAC address must be added to the WAP's list of accepted MAC addresses.

1. Print a network configuration page (for instructions, click [here](#)).
2. Find the printer's hardware address on the network configuration page.
3. Open the the WAP's configuration utility, then add the printer's hardware address to the list of accepted MAC addresses.

printer has the wrong network settings

If one of these network settings in the printer is incorrect, you will not be able to communicate with the printer:

- [communication mode](#)
- [Network Name \(SSID\)](#)
- [Channel \(Ad hoc networks only\)](#)
- [authentication type](#)
- [Encryption](#)
- [WPA \(TKIP\)](#)

Follow these steps to correct the printer's network settings:

1. Connect the printer to your network or computer with an Ethernet cable.
2. Open the printer's [embedded Web server \(EWS\)](#).
3. Click the [Networking](#) tab, then click [Network Settings](#) under the **Configuration** heading.
4. Change the printer's settings to match the settings of the network, then click [Finish](#).



Click the [Advanced Configuration](#) button to access advanced authentication and WPA (TKIP) settings.

5. Close the printer's EWS, then disconnect the Ethernet cable from the printer.

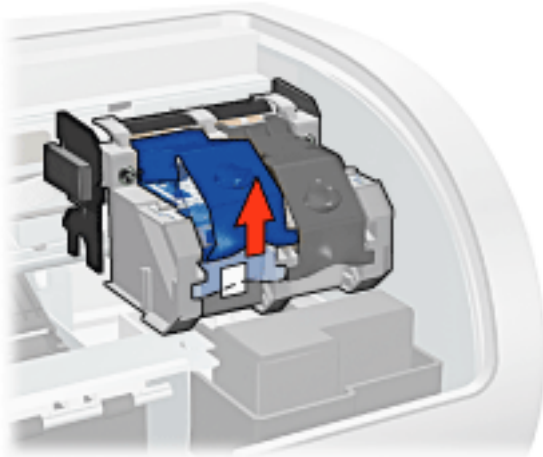
replacing print cartridges

Before buying replacement print cartridges, verify the correct [part numbers](#).

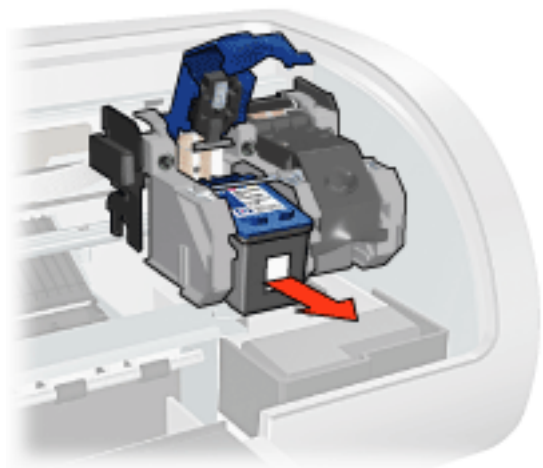
The printer can operate with only one print cartridge installed. For more information click [here](#).

To replace a print cartridge:

1. Load a stack of plain white paper in the In tray.
2. Press the **Power** button to turn on the printer.
3. Open the printer cover.
4. Lift the print cartridge latch to the open position.



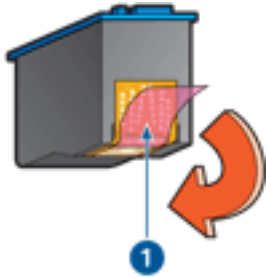
5. Slide the print cartridge out of the print cartridge cradle.



6. Remove the replacement print cartridge from its packaging and carefully

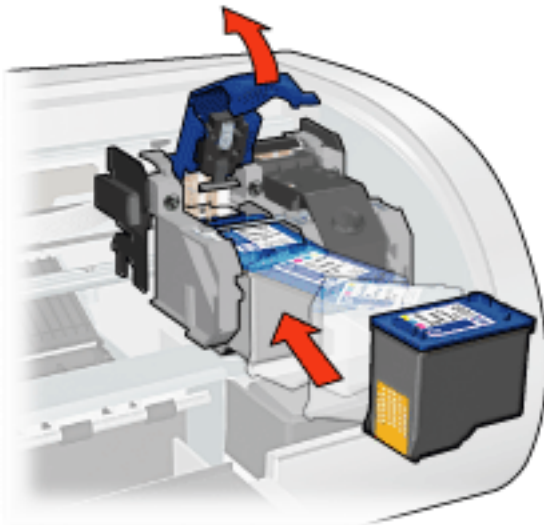
remove the plastic tape.

Caution! Do not touch the print cartridge ink nozzles or copper contacts. Touching these parts will result in clogs, ink failure, and bad electrical connections. Do not remove the copper strips. They are required electrical contacts.



1. remove plastic tape

7. Hold the print cartridge so that the copper strip is on the bottom and facing toward the printer, then slide the print cartridge into the cradle as shown.



8. Push down on the print cartridge latch until it snaps closed.
9. Close the top cover.

The printer automatically prints a calibration page.

For information on storing print cartridges, click [here](#).

For information on recycling empty print cartridges, click [here](#).



Warning! Keep both new and used print cartridges out of the reach of children.

print cartridges

These print cartridges can be used with the printer.

- black print cartridge
- tri-color print cartridge
- photo print cartridge



1. black print cartridge 2. tri-color print cartridge 3. photo print cartridge

Not all print cartridges may be packaged with your printer.



All print cartridges are not available in all countries/regions.

print cartridge selection

printer model	print cartridge	selection number	product number
HP Deskjet 5800 Series	black	56	c6656
	tri-color	57	c6657
	photo	58	c6658

For installation instructions, click [here](#).

For storage instructions, click [here](#).

For recycling instructions, click [here](#).



For print cartridge ink capacity, see the information included in the print cartridge packaging.

For great performance from your HP printer, use only genuine, factory-filled HP print cartridges.

Caution! Damage that is directly attributable to modified or refilled HP print cartridges is specifically excluded from the HP printer's warranty coverage.

maintaining print cartridges

The following tips will help maintain HP print cartridges and ensure consistent print quality:

- Keep all print cartridges in their sealed packages until they are needed. Print cartridges should be stored at room temperatures (15-35 degrees C or 59-95 degrees F).
- Do not remove the plastic tape covering the ink nozzles until you are ready to install the print cartridge in the printer. If the plastic tape has been removed from the print cartridge, do not attempt to reattach it. Reattaching the tape damages the print cartridge.

storing print cartridges

When print cartridges are removed from the printer, store them in a print cartridge protector or an airtight plastic container.

A print cartridge protector comes with the photo print cartridge. If you store the print cartridge in an airtight plastic container, make sure that the ink nozzles face down but are not in contact with the container.

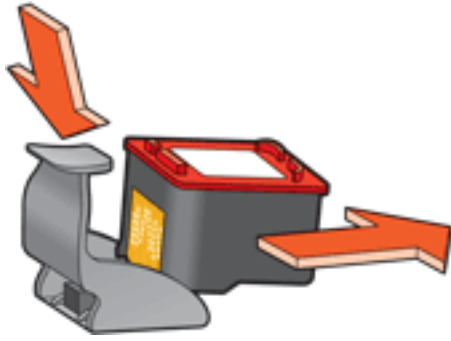
inserting the print cartridge into the print cartridge protector

Slide the print cartridge at a slight angle into the protector, and snap it securely in place.



removing the print cartridge from the print cartridge protector

Press down and back on the top of the protector to release the cartridge. Slide the cartridge out of the protector.



Caution! Do not drop the print cartridge. Dropping the print cartridge may damage it.

print cartridge recovery

Customers interested in recycling their genuine HP print cartridges can participate in HP's Planet Partner's Program for inkjet cartridges. HP offers this program in more countries/regions than any other inkjet cartridge manufacturer in the world. This program is provided as a free service to HP customers as an environmentally sound solution for these products at end-of-life.

To participate, simply follow the directions provided on HP's Web site at this address: **www.hp.com/recycle**. This service is not available in all countries/regions. Customers may be asked for their name, phone number, and address.

Because HP's unique recycling processes are very sensitive to material contamination, we cannot take back and recycle cartridges from other manufacturers. The end products of the recycling process are used in the manufacture of new products, and HP must ensure the composition of the material is consistent. To do that, we recycle only HP original cartridges. This program does not extend to refilled cartridges.

Returned cartridges are separated for purification into raw materials for use in other industries to manufacture new products. Examples of products made from recycled HP print cartridge materials include automobile parts, trays used in microchip fabrication processes, copper wire, steel plates, and the precious materials used in electronics. Depending on the model, HP is able to recycle up to 65% of the print cartridge by weight. The remaining parts that cannot be recycled (ink, foam, and composite parts) are disposed of in an environmentally responsible manner.

ink-backup mode

Ink-backup mode allows the printer to operate using only one print cartridge. It is initiated when a print cartridge is removed from the cradle.

For instructions on removing a print cartridge, click [here](#).

ink-backup mode output

Printing in ink-backup mode slows the printer and affects the quality of printouts.

when only this print cartridge is installed...	the result is...
black print cartridge	Colors are printed as grayscale.
tri-color print cartridge	Colors print but black is grayed and is not a true black.
photo print cartridge	Colors are printed as grayscale, black is grayed and is not a true black.



It is recommended that you do not use the photo print cartridge for ink-backup mode.

exiting ink-backup mode

Install two print cartridges in the printer to exit ink-backup mode.

For instructions on installing a print cartridge, click [here](#).

printer is not printing

verify the following

- Printer is connected to the power source.
- Cable connections are secure.
- Printer is turned on.
- Print cartridges are [correctly installed](#).
- Paper or other media is correctly loaded in the In tray.
- Printer's top cover is closed.
- Rear Access Door or optional duplexer is attached.

check the printer lights

The printer lights indicate printer status and alert you to potential problems.

For more information, see [printer lights are on or flashing](#).

check the network connection

If the printer is on a network, there may be a problem with the network connection.

For network troubleshooting, select the type of network the printer is on:

- [Ethernet network](#)
- [wireless network](#)

check the printer cable connection

If you are using a USB printer cable and the cable is attached to a USB hub, there may be a printing conflict. There are two methods for solving the conflict:

- Attach the printer's USB cable directly to your computer, or
- When printing, do not use other USB devices that are attached to the hub.

if the printer does not turn on

The printer may have drawn too much power.

1. Disconnect the power cord from the electrical outlet.
2. Wait approximately 10 seconds.
3. Reconnect the power cord.
4. Press the **Power** button to turn on the printer.

If the printer still does not turn on, try the following:

- Plug the printer into another electrical outlet, or
- Plug the printer directly into an electrical outlet rather than into a surge protector.

if the printer still does not print

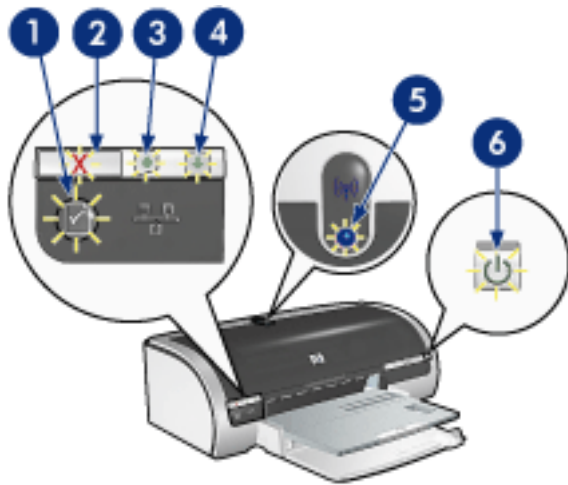
Select the topic below that best describes the problem:

- [paper jam](#)
- [out of paper message](#)
- [printer ejects paper](#)

printer lights are on or flashing

what the lights indicate

The printer lights indicate the printer status.



1. network button light 2. cancel button 3. print cartridge status light 4. resume light 5. wireless communications light 6. power light

networking lights are on or flashing

ethernet lights

If the Ethernet lights are on or flashing, click [here](#).

wireless status light

If the wireless status light is on or flashing, click [here](#).

network button

If the networking icon of the Network button is on or flashing, click [here](#).

power light is flashing

the printer is preparing to print

The light stops flashing when the printer has received all data.

resume light is flashing

the printer may be out of paper

1. Place paper in the In tray or the optional lower tray.
2. Press the [Resume](#) button on the front of the printer.

there may be a paper jam

Follow these instructions to [clear a paper jam](#).

print cartridge status light is on or flashing

if the light is on and not flashing

Check to see if a print cartridge is low on ink.

If a print cartridge is low on ink, consider [replacing the print cartridge](#).

If neither print cartridge is low on ink, press the [Resume](#) button. If the Print Cartridge Status light remains on, turn off, then turn on the printer.

if the light is on and flashing

Verify that the [correct print cartridges](#) are installed.

If you were printing a borderless document when the light started flashing, follow these [guidelines](#).

Otherwise, follow these steps:

1. Open the printer's top cover, remove the black or photo print cartridge, then close the cover.
2. Do one of the following:
 - *If the light is flashing:* Open the top cover, replace the print cartridge you removed, then remove the tri-color print cartridge. Go to step 3.
 - *If the light is off:* There is a problem with the print cartridge you removed. Go to step 3.
3. [Manually clean](#) the print cartridge.

After cleaning the print cartridge, reinsert it into the printer.

If the print cartridge status light continues to flash, [replace the print cartridge](#).

all lights are flashing

the printer may need to be restarted

1. Press the [Power](#) button to turn off the printer, then press the [Power](#) button to restart the printer.
Proceed to step 2 if the lights continue to flash.
2. Press the [Power](#) button to turn off the printer.
3. Disconnect the printer's power cord from the electrical outlet.
4. Reconnect the printer's power cord to the electrical outlet.



5. Press the **Power** button to turn on the printer.

ethernet lights

The printer's Ethernet lights indicate the status of the printer's Ethernet connection.

link light

The Link light is solid when the printer is connected to an Ethernet network and powered on.

if the link light is...	the printer is...
<p>On</p> 	<p>Connected to an Ethernet network and powered on.</p> <p>The printer's wireless radio is disabled when a Ethernet cable is connected to the printer.</p>
<p>Off</p> 	<p>Not connected to an Ethernet network or powered off.</p>

activity light

The Activity light flashes when the printer is receiving or transmitting data over the Ethernet connection.

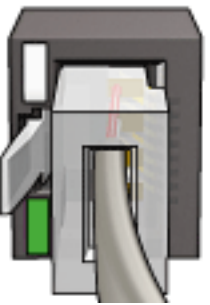
if the activity light is...	the printer is...
-----------------------------	-------------------

Flashing



Receiving or transmitting data over the Ethernet connection.



Off



Not receiving or transmitting data over the Ethernet connection.

wireless status light

The Wireless Status light indicates the status of the printer's internal wireless communications radio.

if the wireless status light is...	the printer is...
<p data-bbox="134 506 181 541">On</p>  <p>The image shows a printer with a callout bubble highlighting the wireless status light. The light is illuminated, indicating it is on.</p>	<p data-bbox="751 766 1469 802">Able to receive and transmit data wirelessly.</p>
<p data-bbox="134 1157 181 1192">Off</p>  <p>The image shows a printer with a callout bubble highlighting the wireless status light. The light is not illuminated, indicating it is off.</p>	<p data-bbox="751 1396 1388 1474">Is not able to receive and transmit data wirelessly.</p>

Flashing



Receiving data.

network button

Use the printer's Network button to do the following:


- Print a network configuration page (for instructions, click [here](#))
- Reset the printer to its network factory defaults (for instructions, click [here](#))



1. network button

The icon on the Network button illuminates when the printer is connected to:

1. An [Ethernet](#) network
2. An active [wireless](#) network
3. A active wireless connection to a computer or other wireless device

if the icon is...	the printer is...
On 	Connected to either an Ethernet network or a wireless network.

Off



Not connected to an Ethernet network or a wireless network.

resetting the printer to the factory default settings

Once the printer is configured for a network, its configuration settings are saved in its memory.

Resetting the printer to its factory default settings will clear all the settings from the printer's memory for your network. This should only be done as a last resort when troubleshooting the printer.

Resetting the printer to its factory default settings may require you to reinstall the printer software. Additionally, you will also have to reconfigure the printer's security settings.

The printer's default settings are:

option	default setting
communication mode	Ad hoc
Network Name (SSID)	[blank]
Encryption	None
Wireless Radio	On

Follow these steps to reset the printer to the factory default settings:

1. Verify that the printer is powered on.
2. Press and hold down the [Power](#) button.
3. While holding down the [Power](#) button, press the [Cancel](#) button six times.
4. Release the [Power](#) button.

wireless networking

For setup information, click one of the following options:

- [wireless network basics](#)
- [wireless security](#)
- [installing the printer on a wireless network](#)

For a description of the printer's wireless feature, click one of the following options:

- [wireless status light](#)
- [network button](#)
- [disabling or restarting the printer's 802.11b radio](#)
- [network configuration page](#)
- [embedded web server \(EWS\)](#)

Other information:

- [resetting the printer to the factory defaults](#)
- [resetting the printer's network name](#)
- [troubleshooting](#)
- [glossary](#)

wireless networking basics

The printer's built-in wireless communications feature allows you to connect the printer directly to a [802.11b](#) wireless network without the aid of an external print server.

To install the printer on a 802.11b wireless network, follow these [instructions](#).

802.11b or Wi-Fi

description

802.11b is a wireless communications technology that allows you to connect computers and other devices (such as printers) to each other and the Internet without the use of wires.

802.11b works by radio transmission in the 2.4 Ghz range. Devices communicate at a speed of 11 Mb/s whenever possible. If signal strength is low or interference disrupts data flow, the speed drops to 5.5 Mb/s, 2 Mb/s, or 1 Mb/s.

other 802.11 standards

802.11g and 802.11a are emerging wireless networking technologies that offer more processing speed than 802.11b.

If you have an 802.11g wireless network, it is recommended that you use an [Ethernet cable](#) to connect the printer to the network's [Wireless Access Point \(WAP\)](#) in order to achieve a processing speed comparable to that of the 802.11g network.

If you have an 802.11a wireless network, you **must** use an [Ethernet cable](#) to connect the printer to the network's [Wireless Access Point \(WAP\)](#) in order to achieve a processing speed comparable to that of the 802.11a network. 802.11a and 802.11b operate on different frequencies, and are, therefore, incompatible.

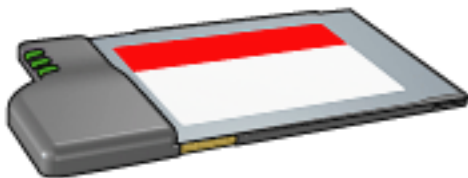
To connect the printer to an Ethernet network, follow these [instructions](#).

adapters and access points

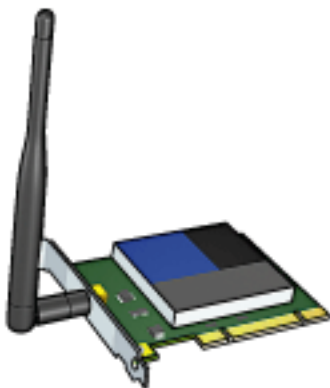
adapters

While some devices, such as the printer, have built-in 802.11b capability, other devices need an adapter to become 802.11b-enabled.

Examples of common adapters include:



PCMCIA card that plugs into the PCMCIA slot in a laptop.



ISA or PCI card that can be used with a desktop computer.



USB adapter that connects to the USB port on a desktop or laptop computer.

Other types of adapters are available. All adapters come with configuration software that allows you to configure the adapter for your wireless network.

access points

A common variety of wireless network is called an [infrastructure network](#). An infrastructure network requires the use of a [Wireless Access Point \(WAP\)](#).

A WAP acts as a central hub for a wireless network or as a router connecting the wireless network to another network (such as the Internet or an Ethernet network). Devices on the network communicate through the WAP.



reducing interference in a wireless network

The following tips will help reduce the chances for interference in a wireless network:

- Keep the wireless devices away from large metal objects, such as filing cabinets, and other electromagnetic devices, such as microwaves and cordless telephones, as these objects can disrupt radio signals.
- Keep the wireless devices away from large masonry structures and other building structures as these objects can absorb radio waves and lower signal strength.
- For an infrastructure network, position the WAP in a central location in line of sight with the wireless devices on the network.
- Keep all wireless devices on the network within range of one another.

wireless network examples

To see some examples of wireless networks, click [here](#).

communication modes

There are two types of communication modes for wireless devices:

- [infrastructure mode](#)
- [ad hoc mode](#)

infrastructure mode

When the printer is set to the [infrastructure](#) communication mode, the printer communicates with other devices on the network, whether the devices are wired or wireless, through a [Wireless Access Point \(WAP\)](#). WAPs commonly act as [routers](#) or [gateways](#) on small networks.



ad hoc mode

When the printer is set to the **ad hoc** communication mode, the printer communicates directly with other wireless devices on the network without the use of a [\(WAP\)](#).



wireless network settings

Devices (such as computers and printers) on a wireless network must share the following settings:

wireless profiles

A wireless profile is a set of network settings unique to a given wireless network. A wireless device might have wireless profiles for several wireless networks. In order to use the printer, the computer must be set to the profile for the printer's wireless network.

For example, a laptop that is used both at work and at home, might have one profile for a wireless network at work and another profile for a wireless network at home.

The printer does not support multiple profiles.

For an in-depth explanation of wireless profiles, click [here](#).

Network Name (SSID)

A network name, or "Service Set Identifier (SSID)," identifies a particular wireless network. In order to operate on a network, a device must know the network's network name.

For an in-depth explanation of network names, click [here](#).

network security

The printer offers several options for wireless network security:

- [WEP](#)
- [authentication](#)
- [WPA \(TKIP\)](#)

Devices on a wireless network must share the same network security settings.

printing

Computers on the network send print jobs directly to the printer, which prints them in the order received.

The printer can accept print jobs sent simultaneously from four users.

For example, if five users each send a print job to the printer at the same time, the printer accepts four of the print jobs and rejects the fifth. The user who sent the fifth print job should wait a few minutes and then resend the print job.

installing the printer on a wireless network

To install the printer on a wireless network, you must have the following information:

- The network's [network name \(SSID\)](#)
- The network's communication mode: either [infrastructure](#) or [ad hoc](#)
- The network's security settings: [WEP](#) and the [WEP key](#) used, [authentication method](#), and/or [WPA \(TKIP\)](#)

Caution! It is recommended that the printer and the computers that use it be on the same subnet. Printer installation across subnets can be problematic depending on the type of router used.

software installation



Follow these steps to install the printer on a wireless network:

1. If necessary, set up the printer hardware.
For printer hardware setup instructions, see the *setup* poster that came with the printer.
2. Verify that the printer is powered on.
3. Choose one of the following:
 - **Infrastructure network:** Connect an [Ethernet cable](#) to an available port on the [Wireless Access Point \(WAP\)](#).
 - **Ad hoc network:** See the *network guide* that came with the printer.
4. Connect the Ethernet cable to the Ethernet port on the back of the printer.
This cable connection is temporary. Near the end of the installation process, you will be prompted to remove the Ethernet cable from the printer and the computer or Wireless Access Point. The printer will then use its wireless communications feature to complete the installation.



Connecting the Ethernet cable to the printer temporarily disables the printer's wireless radio. The wireless radio will re-activate once the Ethernet cable is disconnected from the printer.

5. Do one of the following:

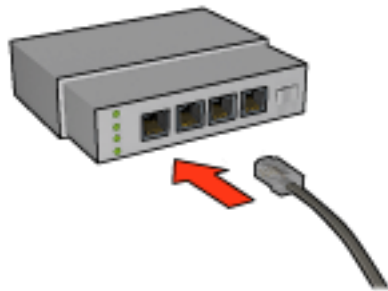
if the link light is...	then...
<p data-bbox="240 262 289 294">On</p> 	<p data-bbox="613 443 824 474">Go to step 6.</p>
<p data-bbox="240 793 289 825">Off</p> 	<p data-bbox="613 747 1425 821">Repeat steps 2 through 4. If the lights are still off, then verify the following items:</p> <ul data-bbox="613 884 1474 1230" style="list-style-type: none"><li data-bbox="613 884 1084 915">○ The printer is powered on.<li data-bbox="613 968 1474 1041">○ The Wireless Access Point (WAP) is powered on (if a WAP is used).<li data-bbox="613 1104 1182 1136">○ All cable connections are secure.<li data-bbox="613 1188 1182 1220">○ You are using an Ethernet cable.

6. Insert the printer software CD in the computer's CD-ROM drive.
7. Follow the onscreen instructions. On the [Connection Type](#) screen, select [Wireless](#).
8. After the installation has completed, follow the onscreen instructions to print a test page.

connecting the printer to an ethernet network

Follow these steps to connect the printer to an Ethernet network:

1. If necessary, set up the printer hardware.
For printer hardware setup instructions, see the *setup* poster that came with the printer.
2. Verify that the printer is powered on.
3. Connect the [Ethernet cable](#) to an available port on the network [hub](#) or [router](#).



Do not plug the Ethernet cable into a port labeled **WAN** or **Uplink**.



4. Connect the Ethernet cable to the Ethernet port on the back of the printer.



The printer's wireless radio is disabled when a Ethernet cable is connected to the printer.

5. Do one of the following:

if the link light is...	then...

<p>On</p> 	<p>Go to step 6.</p>
<p>Off</p> 	<p>Repeat steps 2 through 4. If the lights are still off, then verify the following items:</p> <ul style="list-style-type: none">○ The printer is powered on.○ The network hub or router is powered on.○ All cable connections are secure.○ You are using an Ethernet cable.

6. Print a network configuration page (for instructions, click [here](#)).

7. Install the [printer software](#) on each computer that will use the printer.

Caution! It is recommended that the printer and the computers that use it be on the same subnet. Printer installation across subnets can be problematic depending on the type of router used.

installing the printer software

Before installing the printer software on a networked computer, verify the following items:

- The printer is set up and powered on.
- The network [hub](#), [switch](#), or [router](#) is powered on and functioning properly.
- All computers on the network are powered on and connected to the network.
- The [printer is installed](#) on the network.

previous installations

If the printer software was previously installed on the computer, you must use the printer software CD to install an Ethernet version of the printer driver on the computer. Follow the steps below. The printer software installation wizard will guide you through the installation process.

Caution! It is recommended that the printer and the computers that use it be on the same subnet. Printer installation across subnets can be problematic depending on the type of router used.

software installation

Follow these steps to install the printer software on the computer:

1. Close all applications running on the computer.
2. Insert the printer software CD in the computer's CD-ROM drive.
3. Follow the onscreen instructions. On the [Connection Type](#) screen, select [Wired Network](#).
4. After the installation has completed, follow the onscreen instructions to print a test page.

wireless network examples

There are three common configurations for wireless networks:

- [Ad hoc](#)
- [Infrastructure](#)
- [mixed wired and wireless](#)

ad hoc networks

A type of wireless network in which devices directly communicate with each other rather than through a [Wireless Access Point \(WAP\)](#).

For example, a simple ad hoc wireless network might consist of a laptop and a printer communicating directly with one another.



Ad hoc networks are typically small and simple. Performance on these types of networks can degrade if more than six devices are on the network.

infrastructure networks

On an infrastructure network, devices, such as computers and printers, communicate through a [Wireless Access Point \(WAP\)](#). WAPs commonly act as [routers](#) or [gateways](#) on small networks.

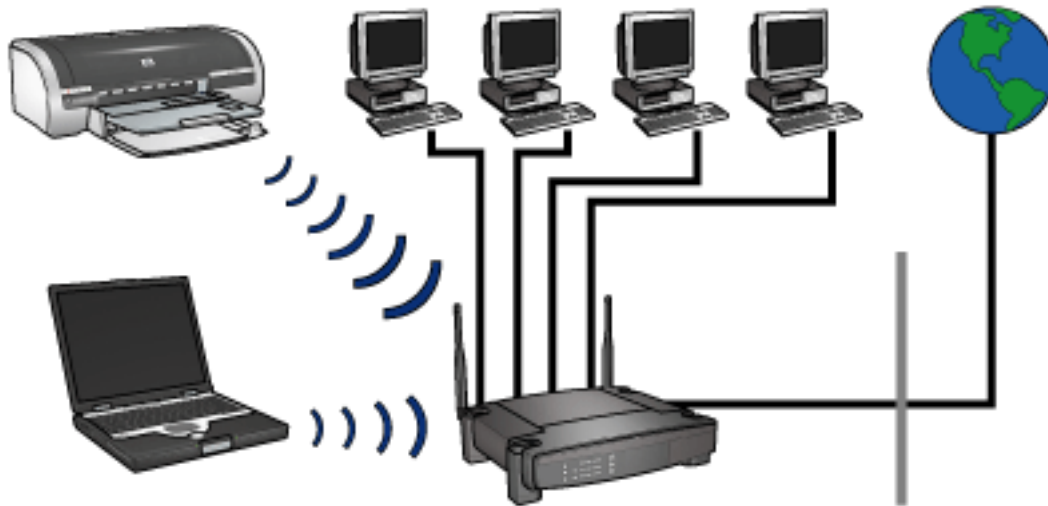
For example, a simple infrastructure wireless network might consist of a laptop and a printer communicating through a WAP.



mixed wired and wireless networks

Wireless devices often exist on a largely wired network.

In this case a [WAP](#) is connected to the main network by an Ethernet cable plugged into the WAP's WAN port. The WAP acts as the go-between for the wired devices and the wireless devices. The wired devices communicate with the WAP over the Ethernet cable, while the wireless devices communicate with the WAP over radio waves.



For example, a mixed wired and wireless network may consist of the following:

- Several desktop computers
- A WAP connected to an Ethernet network
- A printer connected wirelessly to the WAP

In order to use the printer, a desktop PC sends a print job over the Ethernet cable to

the WAP. The WAP then wirelessly transmits the print job to the printer.

wireless profiles

A wireless profile is a set of network settings unique to a given wireless network.

Many wireless devices have configuration utilities that allows the device to have wireless profiles for several wireless networks. In order to use the printer, the computer must be set to the profile for the printer's wireless network.



Not all wireless devices support multiple profiles.


The printer only supports one wireless profile.

example

A person uses the same wireless-enabled laptop at work and at home. They have one wireless network at work, and another wireless network at home.

Each network has a unique set of wireless settings. The person creates the following wireless profiles on the laptop:

- **at_work**: Contains the network settings for the office wireless network
- **at_home**: Contains the network settings for the home wireless network

wireless network location	profile
<p>Office</p> 	<p>at_work</p> <ul style="list-style-type: none">• Network name: office• Communication mode: infrastructure• Encryption Type: WPA• Authentication: EAP/PSK

Home



at_home

- Network name: home
- Communication mode: ad hoc
- Encryption Type: WEP
- Authentication: Open System

When the laptop is being used at work, the person must set the wireless profile to **at_work** in order to connect to the office network.

Conversely, the laptop must be set to the **at_home** wireless profile when the person is at home and wants to connect the laptop to the home network.

Network Name (SSID)

A network name, or “Service Set Identifier (SSID),” identifies a particular wireless network. In order to operate on a network, a device must know the network's network name.

A wireless network only has one network name.

A given location, such as an office, may have several wireless networks, each with a different network name. Wireless devices use network names to identify overlapping wireless networks.

example

The printer is in an office with two wireless [infrastructure](#) networks. Each network has a [Wireless Access Point \(WAP\)](#).



In this example, both wireless networks have the same security settings.



1. network name equals “network_1” 2. network name equals “network_2”

The network name for one wireless network is **network_1**. The network name for the other wireless network is **network_2**.

The printer receives signals from both networks, **network_1** and **network_2**.

the printer is configured for network_1

The printer's network name (SSID) setting has been configured for **network_1**. The printer can only communicate to **network_1**. In other words, the printer can only accept print jobs from **network_1**.



the printer communicates with network_1.

the laptop is configured for network_2

The laptop's network name (SSID) settings have been configured for **network_2**. The laptop is unable to communicate with the printer and cannot send print jobs to the printer.



the laptop cannot communicate with the printer.

the laptop is reconfigured for network_1

The laptop's network name (SSID) settings have been reconfigured for **network_1**. The laptop is able to communicate with the printer and is ready to send print jobs to **network_1**.



the laptop and the printer can communicate

printer's 802.11b radio

The printer has an internal 802.11b radio for wireless communication.

how the radio works

The radio broadcasts on the 2.4 Ghz frequency whenever the radio is powered on and enabled.

The radio automatically turns off when the printer is:

- Powered off or unplugged from a power source
- Connected to an active Ethernet network with an Ethernet cable (if the network becomes inactive, the radio automatically turns on)



USB connections have no effect on the radio's functionality.

To either disable or enable the printer's 802.11b radio, follow these [steps](#).

wireless status light

The printer's wireless status light indicates the status of the printer's 802.11b radio. For a description of the wireless status light, click [here](#).

disabling and enabling the printer's 802.11b radio

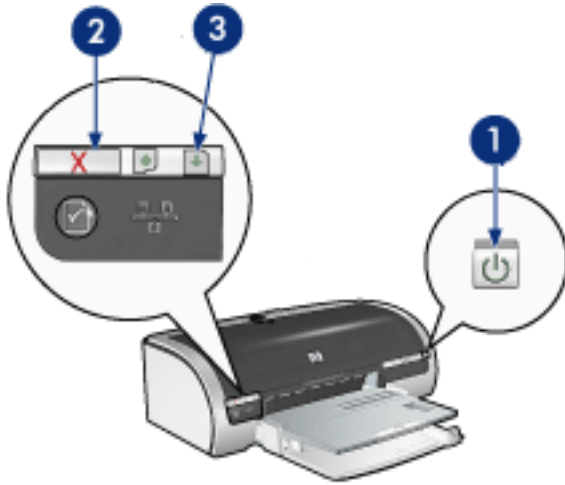
Disabling the printer's 802.11b radio turns the radio off. The radio sends no signals even when the printer is powered on.

Enabling the printer's 802.11b radio turns the radio on. The radio sends signals when the printer is powered on and **not** connected to an active network by an Ethernet cable.

disabling the printer's 802.11b radio

Follow these steps to disable the printer's 802.11b radio:

1. Verify that the printer is powered on and is idle.
2. Press and hold down the **Power** button.
3. While holding down the **Power** button, press the **Cancel** button seven times, then press the **Resume** button once.
4. Release the **Power** button.

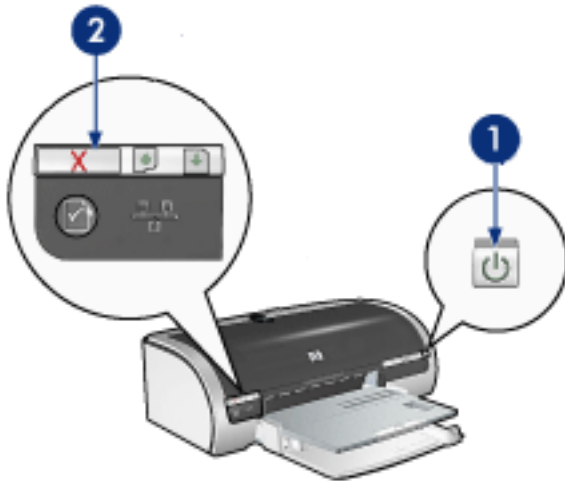


1. press and hold the power button
2. press the cancel button seven times
3. press the resume button once, then release the power button

enabling the printer's 802.11b radio

Follow these steps to re-enable the printer's 802.11b radio:

1. Verify that the printer is powered on and is idle.
2. Press and hold down the **Power** button.
3. While holding down the **Power** button, press the **Cancel** button seven times.
4. Release the **Power** button.



1. press and hold the power button
2. press the cancel button seven times, then release the power button

resetting the printer's network name

As part of troubleshooting the printer, you may need to reset the printer's [network name \(SSID\)](#) setting to one of the following:

- hpsetup
- an unspecified network name

resetting the network name to hpsetup

Follow these steps to reset the printer's network name to **hpsetup**:

1. Verify that the printer is powered on and is idle.
2. Press and hold down the [Network](#) button.
3. While holding down the [Network](#) button, press and release the [Resume](#) button.
4. Release the [Network](#) button.
5. Print a network configuration page (for instructions, click [here](#)).
6. Verify that the network name (item 12 on the list) is set to **hpsetup**.

If the network name is not hpsetup, then repeat steps [1 through 6](#).

resetting the network name to an unspecified SSID

Resetting the printer's network name setting to an unspecified SSID allows the printer to connect to a wireless network that broadcasts its network name and presents the strongest signal to the printer.

To reset the printer's network name setting to an unspecified SSID, reset the printer to its factory defaults (for instructions, click [here](#)).

paper jam

follow these steps

1. Press the [Resume](#) button.
2. If you are printing labels, verify that a label did not become detached from the label sheet while passing through the printer.

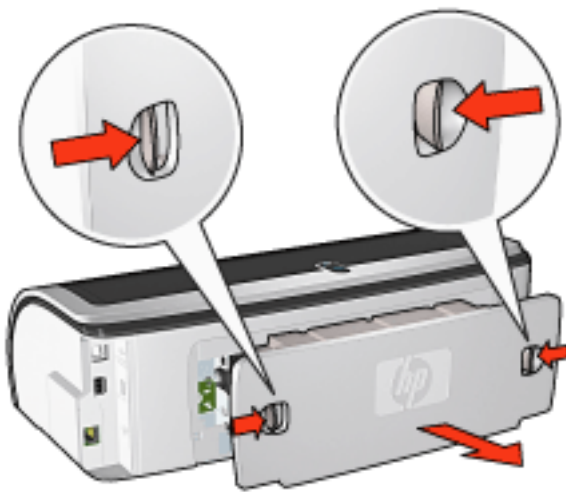
if the paper jam is not cleared

[printer does not have a two-sided printing accessory attached](#)

[printer has a two-sided printing accessory attached](#)

printer does not have a two-sided printing accessory attached

1. Push the two latch handles on the printer's Rear Access Door toward each other, then remove the door.



2. Remove the paper jam from the back of the printer, then replace the Rear Access Door.

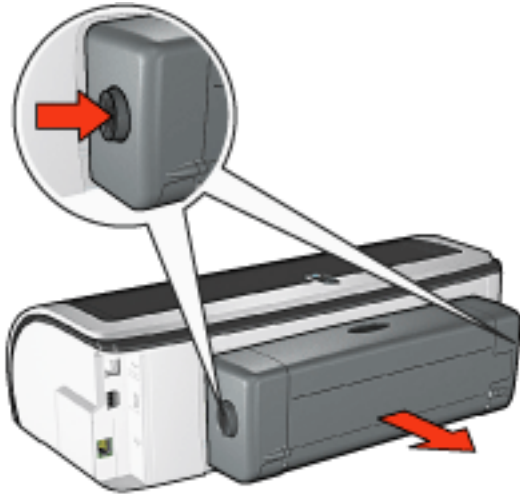


3. Press the [Resume](#) button.

4. Print the document.

printer has a two-sided printing accessory attached

1. Press the buttons on the left and right sides of the Two-Sided Printing Accessory, then remove it from the printer.

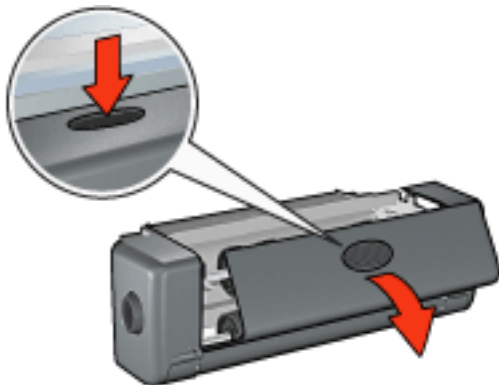


2. Remove any paper in the back of the printer.

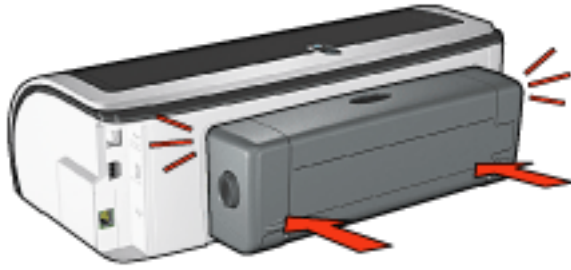
If the paper jam is cleared, proceed to step 3 below.

If the paper jam is not cleared, proceed to step 1 below.

1. Press the button on top of the Two-Sided Printing Accessory, then lower the access door.



2. Remove any paper from the Two-Sided Printing Accessory, then close the access door.
3. Reinsert the Two-Sided Printing Accessory into the printer until both sides snap into place.



Do not press the buttons on either side of the duplexer when installing it in the printer. Use the buttons only when removing the duplexer from the printer.

4. Press the [Resume](#) button.

borderless printing problems

When printing borderless printouts, follow these guidelines:

- Verify that the paper size specified in the **Size is** drop-down list on the [Paper/Quality](#) tab matches the size of the paper loaded in the In tray.
- Select the appropriate paper type in the **Type is** drop-down list on the [Paper/Quality](#) tab.
- If printing in grayscale, select **High Quality** under **Print in Grayscale** on the [Color](#) tab.
- Do not print borderless documents in [ink-backup mode](#). Always have two print cartridges installed in the printer.

part of the photograph is faded

fading occurs on the edges of a printout



Verify that photo paper is not curled. If the photo paper is curled, place the paper in a plastic bag and gently bend it the opposite direction of the curl until the paper lies flat. If the problem persists, then use photo paper that is not curled.

For instructions on preventing photo paper from curling, click [here](#).

fading occurs near the edges of a printout



If fading occurs approximately 1 to 2.5 inches from the edge of a photograph, try the following:

- Install a [photo print cartridge](#) in the printer.
- Open the [Printer Properties](#) dialog box, select the [Paper Type/Quality](#) tab, then set the [Print Quality](#) to [Maximum dpi](#).
- Rotate the image [180 degrees](#).

streaks appear in a light portion of a printout



If streaks appear in a light portion approximately 2.5 inches from one of the long edges of a photograph, try the following:

- Install a [photo print cartridge](#) in the printer.
- Rotate the image [180 degrees](#).

image is printed at an angle



Follow these steps if the image is printed at an angle:

1. Remove all paper from the In tray.
2. Load the photo paper correctly in the In tray.
3. Verify that the paper guides fit *firmly* against the media.
4. Follow loading instructions for the media type.

printout has an unwanted border

for most photo paper types



If the printout has an unwanted border, then [calibrate the printer](#).

for photo paper with a tear-off tab

If the border appears below the tear-off tab, then remove the tab.



If the border appears above the tear-of tab, then [calibrate the printer](#).



ink smears

Follow these steps if ink smears appear on the back of the printouts, or the paper sticks together.

1. Open the [Advanced Features](#) dialog box.
2. Move the [Dry Time](#) slider toward [More](#).
3. Move the [Ink Volume](#) slider toward [Light](#).



The colors in the image may become lighter.

4. Click [OK](#).

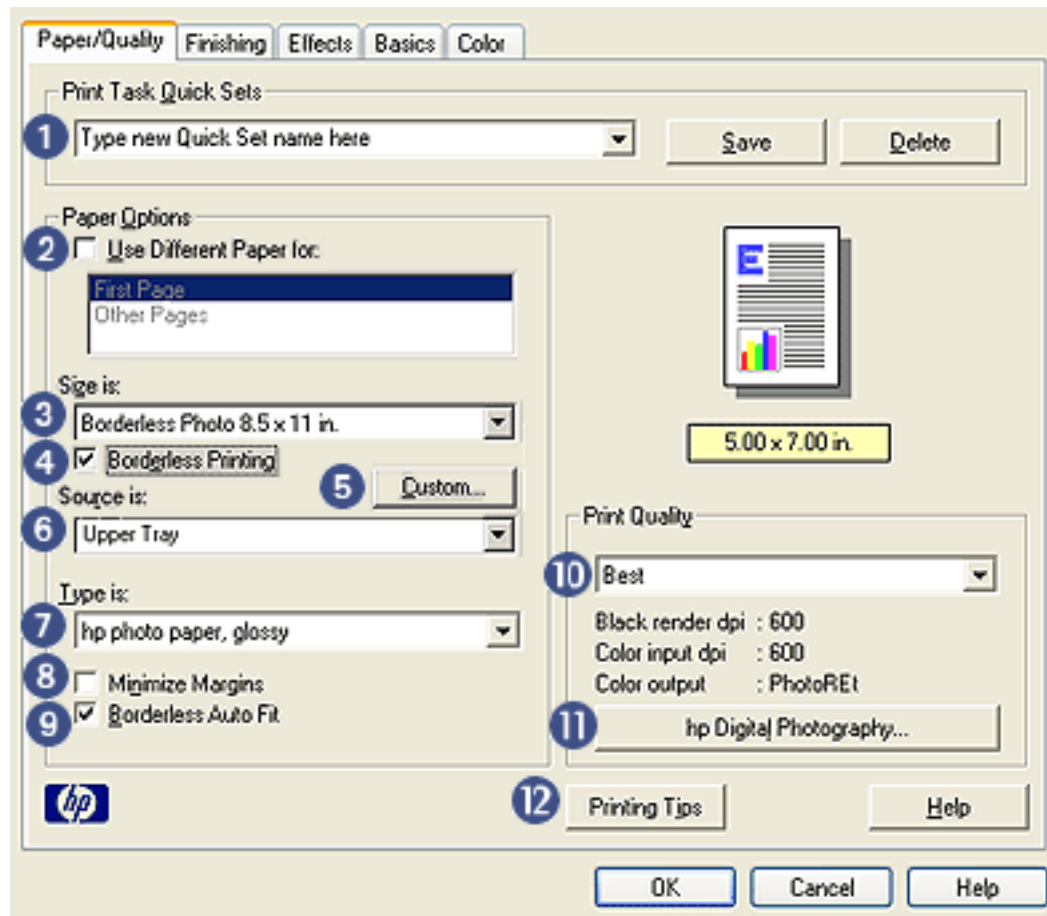
If the problem persists:

1. Remove the borderless printing media, then load plain paper in the In tray.

2. Press and hold down the **Print Cancel** button until the printer starts printing a self-test page, then release the button.
3. Repeat step 2 until the self-test has no ink smears on the back of the paper.

paper/quality tab

The Paper/Quality tab allows you to set these options:



1. **Print Task Quick Sets:** See [print task quick sets](#).
2. **Use Different Paper For:** See [printing a cover page](#).
3. **Size is:** Size of paper used.
4. **Borderless Printing:** See [borderless printing](#).
5. **Custom:** See [setting a custom paper size](#).
6. **Source is:** Select the tray from which you want to print. Select [Upper Tray](#) to print from the printer's In tray.
7. **Type is:** Type of paper used.
8. **Minimize Margins:** Select to print closer to the bottom edge of the page. This feature may cause ink to smear on certain paper types.
9. **Borderless Auto Fit:** Select to fit the printed image across the entire page when printing a [borderless document](#) on certain paper types.

10. **Print Quality:** There are five print quality options: [FastDraft](#), [Fast Normal](#), [Normal](#), [Best](#), and [Maximum dpi](#). As print quality increases from [FastDraft](#) to [Maximum dpi](#), the quality of the printed image improves and the print speed decreases. [FastDraft](#) uses the least amount of ink. [Maximum dpi](#) mode uses the most amount of ink and requires a large amount of disk space.
11. **hp Digital Photography:** See [printing digital photographs](#).
12. **Printing Tips:** Printing ideas.

print task quick sets

Use print task quick sets to print with or save print settings you use often.

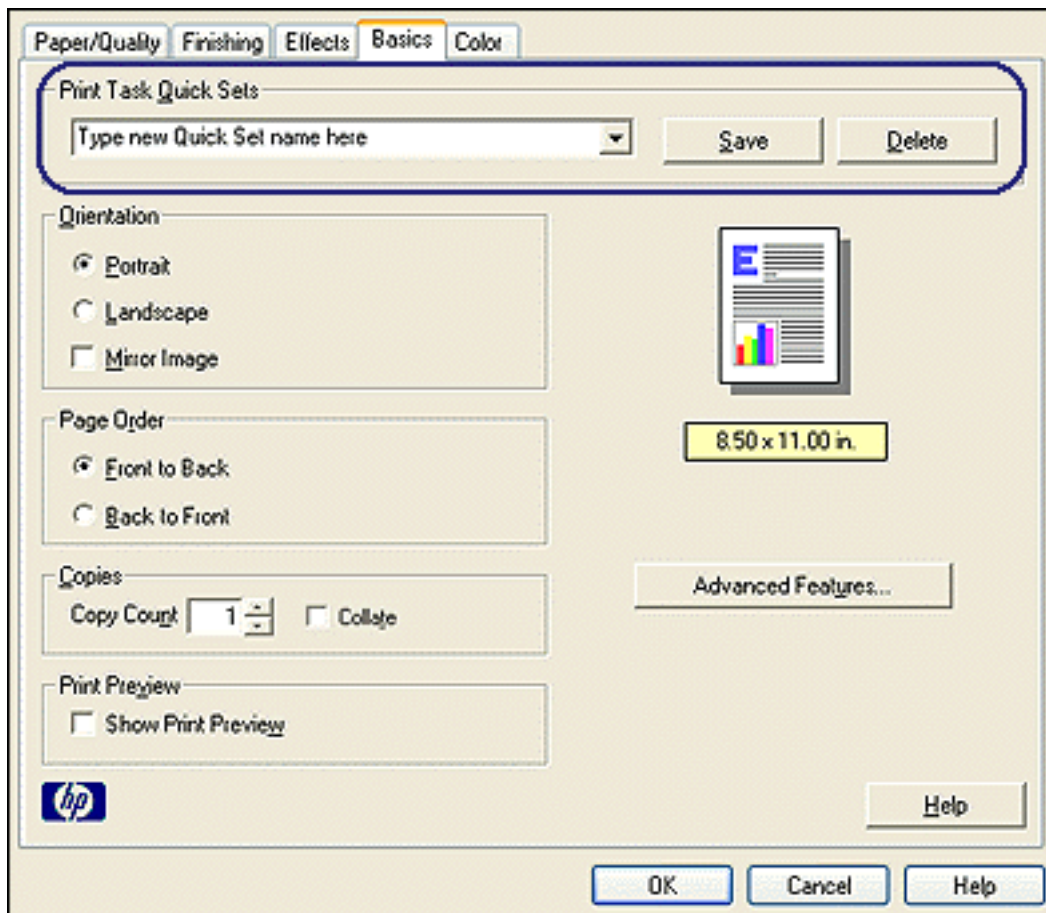
For example, if you frequently print envelopes, you can create a print task that contains the paper size, print quality, and orientation setting you normally use for envelopes. After creating the print task, simply select it when printing envelopes rather than setting each of the print settings separately.

Create your own print task or use the specially designed print tasks available in the [Print Task Quick Sets](#) drop-down list.

using a print task quick set

Follow these steps to use a print task quick set:

1. Open the [Printer Properties](#) dialog box.
2. Select the print task you want to use from the drop-down list.



3. Click **OK**.

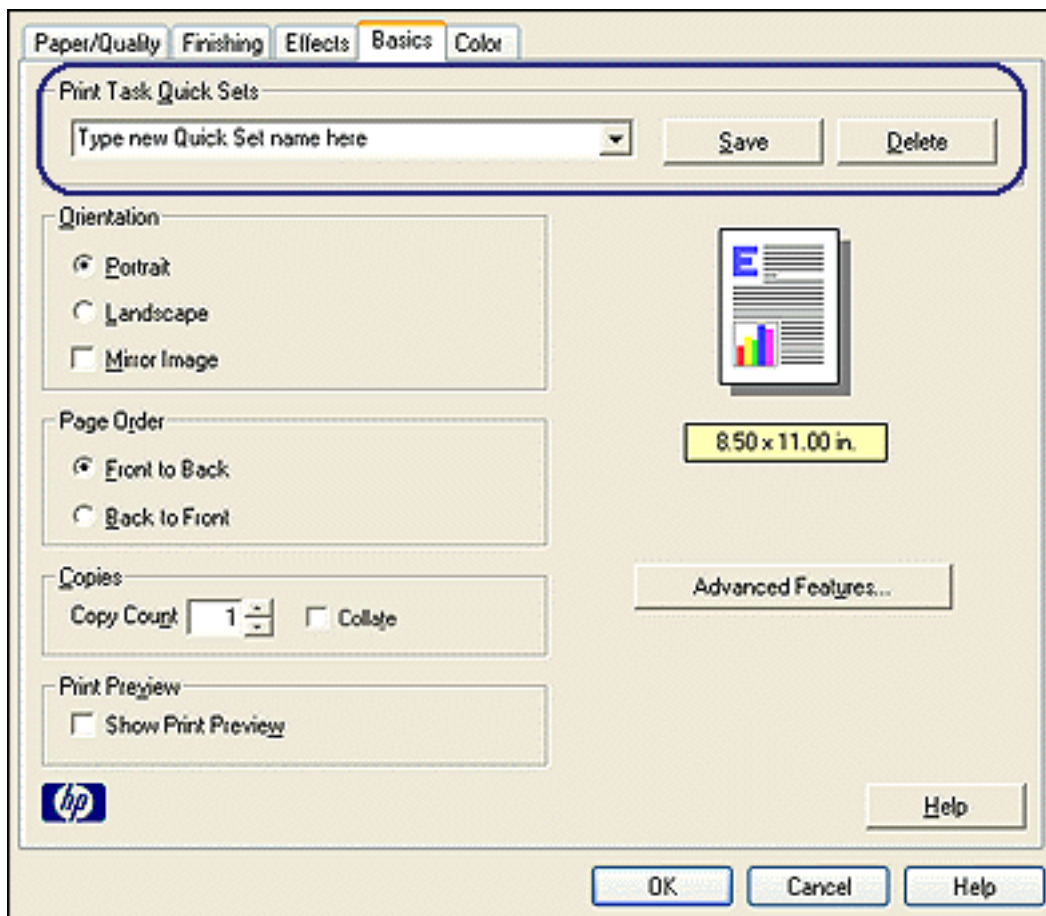


To restore default print settings, select [Default Print Settings](#) from the [Print Task Quick Sets](#) drop-down list, and click **OK**.

creating a print task quick set

Follow these steps to create a print task quick set:

1. Open the [Printer Properties](#) dialog box.



2. Select the options you want to include in the new print task.
3. Enter a name for the new print task in the [Print Task Quick Sets](#) drop-down list, then click **Save**.

The print task quick set is added to the drop-down list.



If you add more options to the print task, you must rename the print task, then click **OK**.

deleting a print task quick set

Follow these steps to delete a print task quick set:

1. Open the [Printer Properties](#) dialog box.
2. Select the print task you want to delete from the drop-down list, then click [Delete](#).



Some print task quick sets cannot be deleted.

print settings

The printer is controlled by software installed on your computer. Use the printer software, known as the *printer driver*, to change the print settings for a document. To change the print settings, open the [Printer Properties](#) dialog box.

displaying the printer properties dialog box

Follow these steps to display the [Printer Properties](#) dialog box:

1. Open the file you want to print.
2. Click [File](#) > [Print](#), then select [Properties](#). The [Printer Properties](#) dialog box appears.



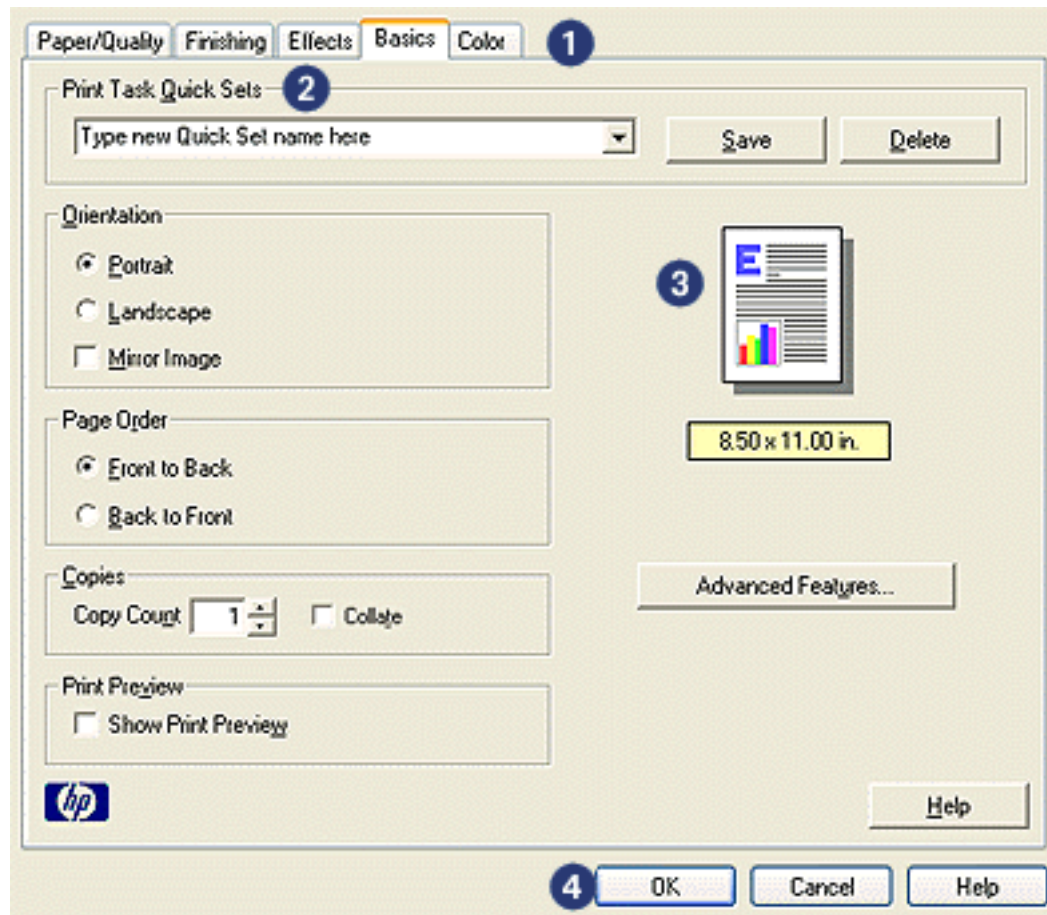
The path to the [Printer Properties](#) dialog box may vary depending on the software program.

using the printer properties dialog box

The [Printer Properties](#) dialog box has several tools that make it easy to use.

buttons and menus

The [Printer Properties](#) dialog box has the following features:



1. **Tabs:** Click a tab to see its contents.
2. **Print Task Quick Sets:** See [print task quick sets](#).
3. **Preview:** Shows how changes to the print settings affect the printout.
4. **Buttons:**
 - **OK:** Saves and applies changes.
 - **Cancel:** Closes the dialog box without saving the new settings.
 - **Help:** Offers instructions for using the [What's This?](#) help feature.

An [Apply](#) button may also appear. The [Apply](#) button saves changes to the settings without closing the dialog box.



To find more information about options on each tab screen, point to an option and click the right mouse button to display the [What's This?](#) dialog box. Click [What's This?](#) to view more information about the selected item.

tabs

- [paper/quality tab](#)

- [finishing tab](#)
- [effects tab](#)
- [basics tab](#)
- [color tab](#)



Printer features, and instructions on how to use them, are subject to change. This document was released for publishing before all of the printer features were determined.

printing a cover page

The [Use Different Paper For](#) feature prints the first page of a multi-page document on a different paper-type than is used for the rest of the document.

Follow these steps to print with the [Use Different Paper For](#) feature:

1. Follow the appropriate instructions for loading paper:

is the 250-Sheet Plain Paper tray being used...	then...
Yes	Load the paper for the first page in the In tray , then load plain paper in the lower tray.
No	Load the paper for the bulk of the document in the In tray, then load the paper for the first page on top of the paper stack in the In tray.

For instructions on loading a specific paper-type, click [here](#), then select the appropriate paper-type.

2. Open the [Printer Properties](#) dialog box.
3. Click the [Use Different Paper For](#) checkbox.
4. Select the paper-type and paper size for the first page.
5. Select [Upper](#) in the [Paper Tray](#) box.
6. Click the [Other Pages](#) tab.
7. Select [Upper](#) or [Lower](#) in the [Paper Tray](#) box.
8. Select any other desired print settings, then click [Print](#).



Do not print the document in reverse order (last page first).

250-sheet plain paper tray accessory

The 250-sheet Plain Paper Tray Accessory expands the paper capacity of your printer to 400 sheets. It is useful for high-volume printing and for occasions when you want to use the In tray for special media such as letterhead paper, but still have plain paper readily available.

If the 250-Sheet Plain Paper Tray Accessory is not included with your printer, it may be [purchased](#) separately from an authorized HP dealer.



The 250-Sheet Plain Paper Tray Accessory is not available in all countries/regions.

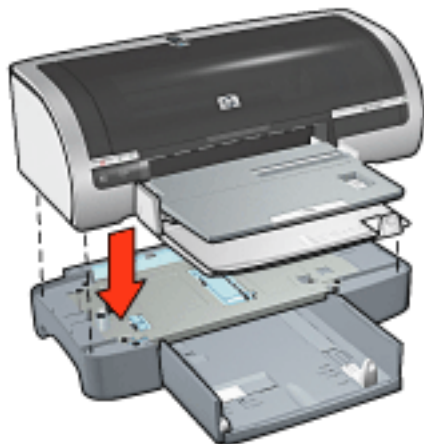
For information about the 250-Sheet Plain Paper Tray Accessory, select one of the topics below:

- [installing the 250-sheet plain paper tray accessory](#)
- [accessory description](#)
- [setting the paper size](#)
- [loading the lower tray](#)

installing the 250-sheet plain paper tray accessory

Follow these steps to install the 250-Sheet Plain Paper Tray Accessory:

1. Turn off the printer.
2. Select a location for the printer and place the 250-Sheet Plain Paper Tray Accessory in this location.
3. Carefully lift the printer and orient it above the paper tray.

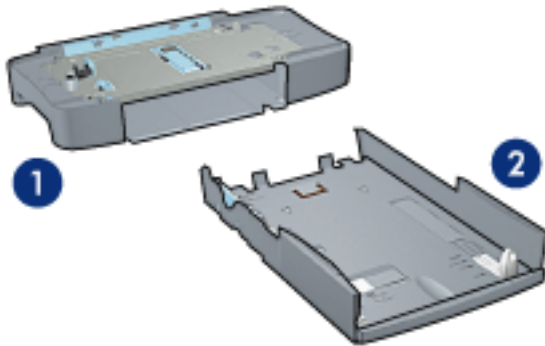


4. Gently place the printer on top of the paper tray.

using the 250-sheet plain paper tray accessory

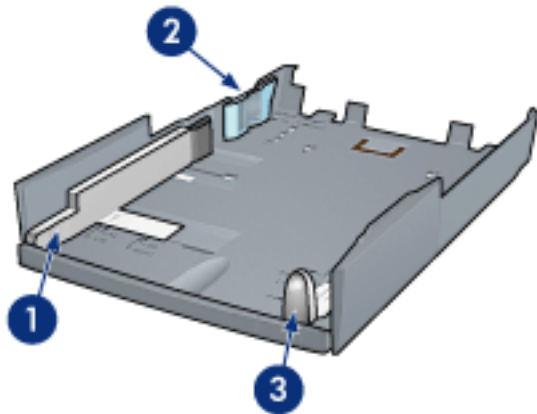
accessory description

The 250-Sheet Plain Paper Tray Accessory has two parts.



1. base 2. lower tray

The lower tray has three size adjusters.



1. paper width guide 2. paper width fence 3. paper length guide



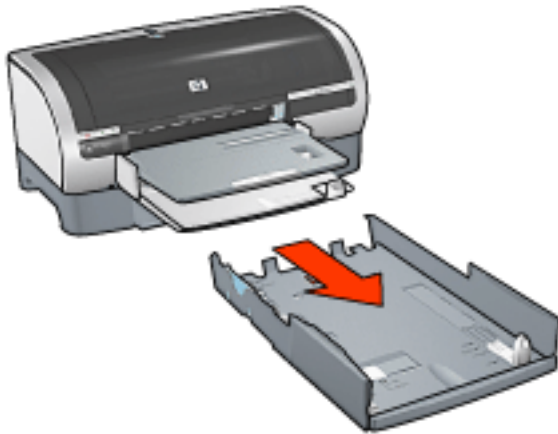
When changing the paper size in the paper tray, you must [set all three paper guides](#).

setting the paper size

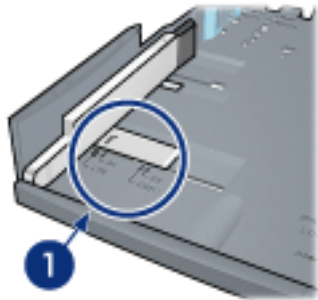
When changing the paper size in the paper tray, all three paper guides must be set to the correct setting.

Follow these steps to set the paper size:

1. Remove the lower tray from the base.



2. Slide the paper width guide until the arrow is even with the correct setting.

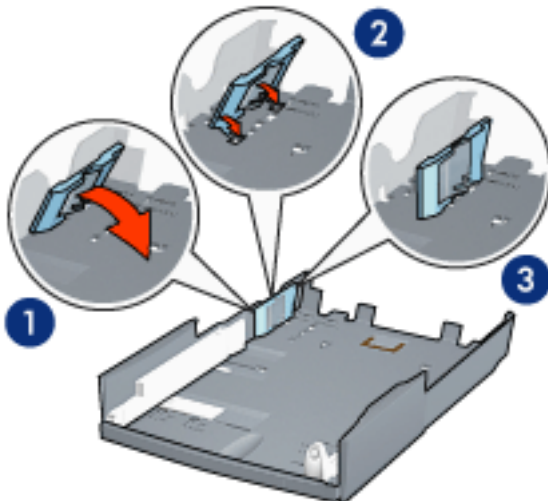


1. align the arrows



To print on legal-sized paper, set the paper width guide to **LTR.**

3. Set the paper width fence by carefully inserting it into the appropriate sized slot.



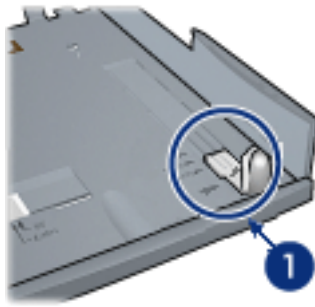
1. tilt the fence forward. 2. insert the fence into the appropriate slots 3. tilt

the fence back until it locks into place



To print on legal-sized paper, set the paper width fence to **LTR.**

4. Set the paper length guide by pulling it until the arrow lines up with the paper size.



1. align the arrows

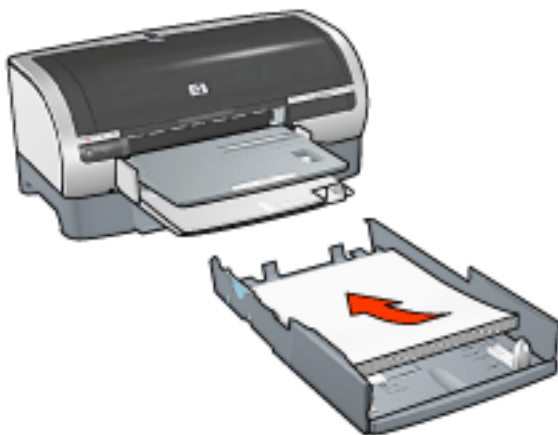


To print on legal-sized paper, pull the paper length guide all the way out.

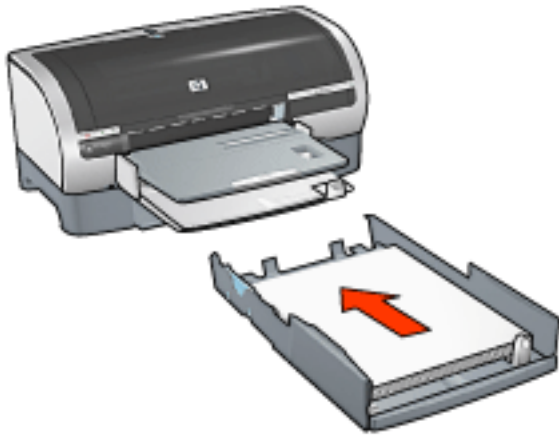
loading the lower tray

Follow these steps to load paper:

1. Verify that all three [paper guides](#) are set to the correct setting.
2. Insert the paper into the lower tray.



3. Insert the lower tray in the base until it locks into place.



printing instructions

For instructions on printing with the 250-Sheet Plain Paper Tray Accessory, click [here](#).

selecting a paper source

The printer offers the following paper source options:

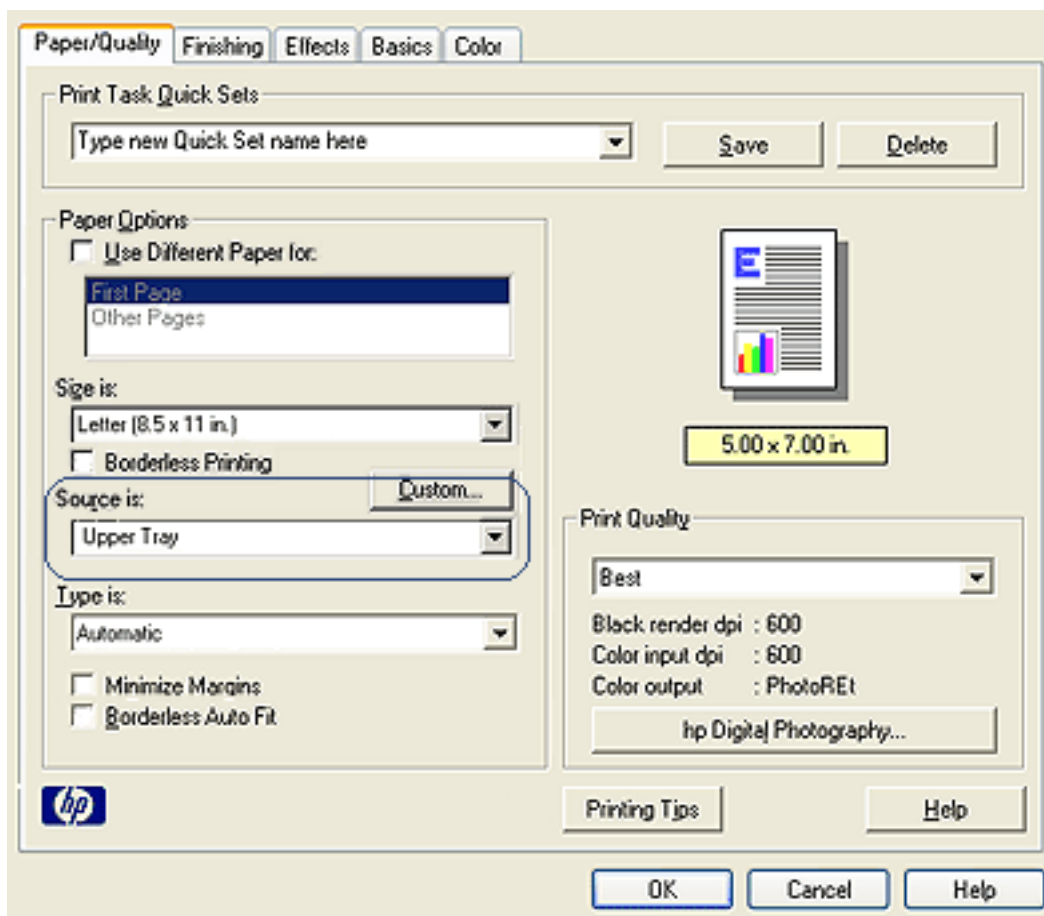
- [in tray](#)
- [250-sheet plain paper tray accessory](#)



The [250-Sheet Plain Paper Tray Accessory](#) is not included with your printer, but may be purchased separately from an authorized HP dealer. The accessory is not available in all countries/regions.

Follow these steps to select a paper source:

1. Open the [Printer Properties](#) dialog box.
2. Select the [Paper/Quality](#) tab.



3. Select one of the following options in the [Source is](#) drop-down list:
 - **Upper Tray**: Prints from the In tray.

- **Lower Tray:** Prints from the 250-Sheet Plain Paper Tray Accessory.
- **Upper, then Lower:** Prints from the In tray. If the In tray is empty, the printer prints from the 250-Sheet Plain Paper Tray Accessory.
- **Lower, then Upper:** Prints from the 250-Sheet Plain Paper Tray Accessory. If the accessory is empty, the printer prints from the In tray.

paper trays

For information about the paper tray, select one of the topics below:

- [unfolding the paper tray](#)
- [in tray](#)
- [out tray](#)
- [Folding the paper tray](#)

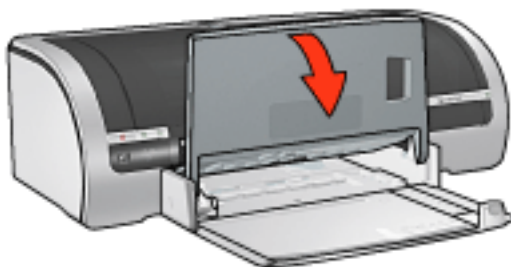
unfolding the paper tray

Follow these steps to unfold the paper tray:

1. Lower the In tray.



2. Pull out the paper length guide to the edge of the In tray.
3. Lower the Out tray.



4. Pull out the Out tray extension.



in tray

The In tray holds paper and other media to be printed.



1. in tray

paper width guide

Adjust the paper width guide to print on different sizes of paper.



1. paper width guide

paper length guide

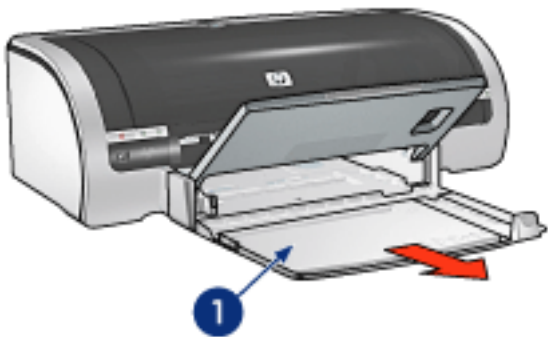
Adjust the paper length guide to print on different sizes of paper.



1. paper length guide

in tray extension

To print on large paper, such as legal paper, pull out the paper length guide to the edge of the In tray, then pull out the In tray extension.



1. in tray extension

out tray

Printed pages are deposited in the Out tray.



1. out tray

To prevent paper from falling out of the tray, pull out the Out tray extension.



1. out tray extension

When printing in FastDraft mode, pull out the Out tray extension, expand the Out tray extension, then unfold the Out tray extension stop.



1. out tray extension 2. out tray extension stop



Do not unfold the Out tray extension stop when printing on legal paper. Only unfold the Out tray extension stop when printing in FastDraft mode on other types of media.

Folding the paper tray

Follow these steps to fold the paper tray:

1. Fold the Out tray extension stop, collapse the Out tray extension, then push the Out tray extension into its storage slot.



2. Raise the Out tray.



3. If necessary, push in the In tray extension.



4. Push the paper length guide into the interior of the printer until it stops.

5. Raise the In tray.



printing

Click the appropriate topic below to view an explanation of the printer software:

- [print settings](#)
- [advanced features](#)
- [device status box](#)

Click the appropriate topic below to view instructions on printing functions:

- [printing a document](#)
- [changing default settings](#)
- [printing digital photographs](#)
- [digital photography technologies](#)
- [two-sided printing](#)
- [print task quick sets](#)
- [borderless printing](#)
- [setting a custom paper size](#)
- [selecting a paper source](#)
- [selecting a paper type](#)
- [printing a booklet](#)
- [printing multiple pages on a single sheet of paper](#)
- [printing a screen image](#)
- [printing a cover page](#)
- [watermarks](#)

Click the appropriate topic below to view instructions for printing on various types of media:

- [plain paper](#)
- [envelopes](#)
- [transparencies](#)
- [labels](#)
- [index cards and other small media](#)

- [greeting cards](#)
- [hagaki cards](#)
- [photographs](#)
- [posters](#)
- [banners](#)
- [iron-on transfers](#)

advanced features

Printing photographs, transparencies, or documents with graphics may require you to set options on the [Advanced Features](#) dialog box.

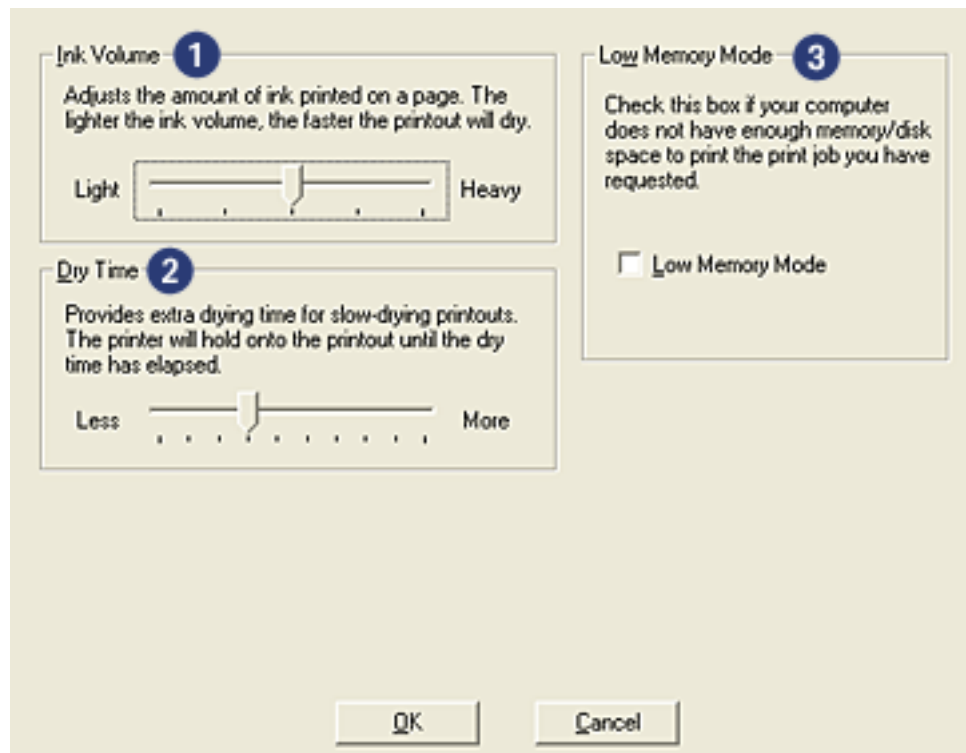
opening the advanced features dialog box

Follow these steps to open the [Advanced Features](#) dialog box:

1. Open the [Printer Properties](#) dialog box.
2. Click the [Basics](#) tab, then click the [Advanced Features](#) button.

using the advanced features dialog box

Use the [Advanced Features](#) dialog box to set these options:

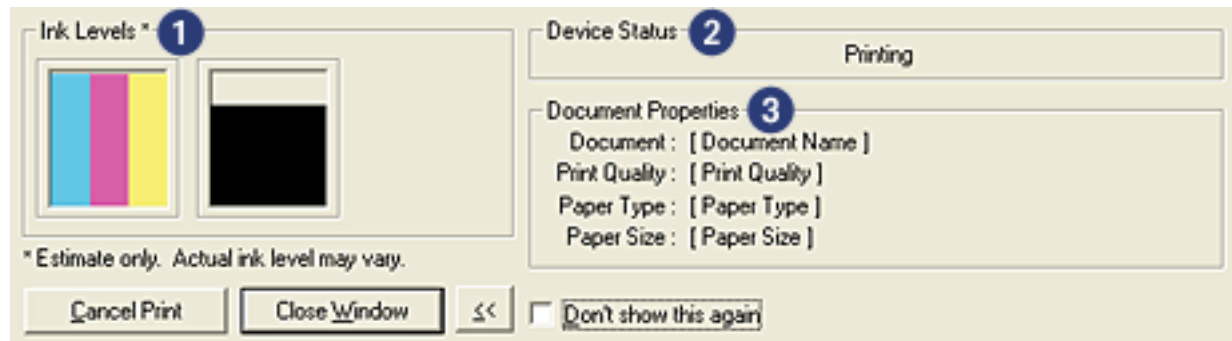


1. **Ink Volume:** Adjusts the amount of ink printed on a page. Reducing the ink volume reduces the color quality.
2. **Dry Time:** Provides extra drying time for slow-drying printouts.
3. **Low Memory Mode:** Allows a document to be printed from a computer that does not have enough memory or disk space to print the document under normal conditions. Using this option may reduce the quality of the printout. The [Maximum dpi](#) print quality mode is not available when the printer is in Low

Memory Mode.

device status box

The [Device Status Box](#) appears each time the printer prints a file.



The following items are displayed:

1. **Ink Levels:** Approximate ink level of each print cartridge.
2. **Device Status:** The status of the printer. For example, [Spooling](#) or [Printing](#).
3. **Document Properties:** The following information about the current print job is provided.
 - o **Document:** Name of the document that is currently printing.
 - o **Print Quality:** Print quality setting being used.
 - o **Paper Type:** Type of paper used.
 - o **Paper Size:** Size of paper used.

To cancel a print job, click [Cancel Print](#).

To close the [Device Status Box](#), click [Close Window](#).

not operational over a wireless connection

The device status box does not display print status if the printer is operating over a wireless connection.

printing a document

basic printing instructions

Follow these steps to print a document:

1. Open the file you want to print.
2. Click [File](#) > [Print](#).
3. Click [OK](#) to print with the printer's default print settings.

setting printing options

Follow these steps to change printing options:

1. Open the file you want to print.
2. Click [File](#) > [Print](#), then select [Properties](#).

The [Printer Properties](#) dialog box appears.



The path to the [Printer Properties](#) dialog box may vary depending on the software program.

3. Specify the print settings shown below:
 - Select the [Paper/Quality tab](#) to choose paper options, [borderless printing](#), and print quality, or to access the [HP digital photography](#) options.
If you want to use preset print settings, choose a [Print Task Quick Set](#).
 - Select the [Finishing tab](#) to choose document options, [print posters](#), or rotate the printed image by 180 degrees.
 - Select the [Effects tab](#) to choose resizing options and [watermarks](#).
 - Select the [Basics tab](#) to choose orientation and page order options, specify the number of copies printed, enable [Show Print Preview](#), or to access [Advanced Features](#).
 - Select the [Color tab](#) to choose color options and color attributes.
4. Click [OK](#), then follow the application's instructions to print the document.

borderless printing

Borderless printing lets you print to edges of certain paper types and a range of standard paper sizes from L size (89 x 127 mm) to Letter (8.5 x 11 in) and A4 (210 x 297 mm). The printer can also print on 4 x 6 inch photo paper with a tear-off tab.

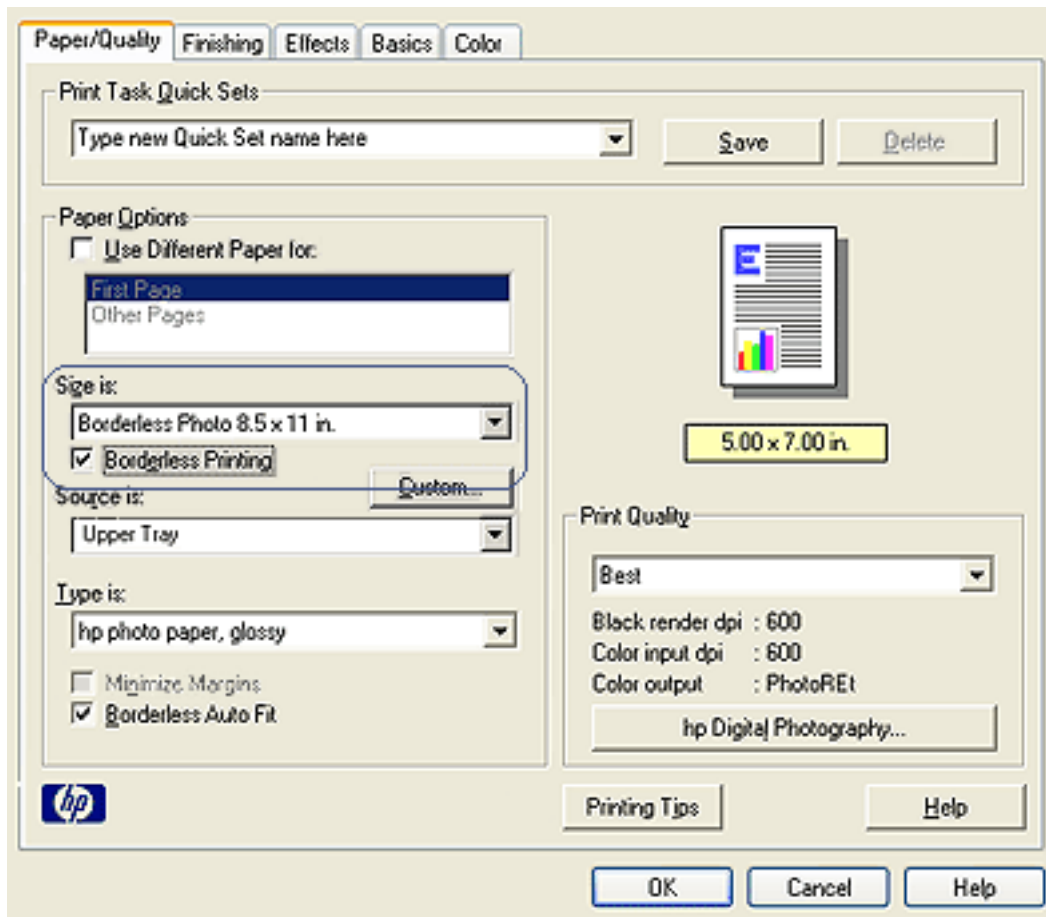
guidelines

- Do not print borderless documents in [ink-backup mode](#). Always have two print cartridges installed in the printer.
- Open the file in a software application and assign the image size. Ensure that the size corresponds to the paper size on which you want to print the image.

printing

Follow these steps to print a borderless document:

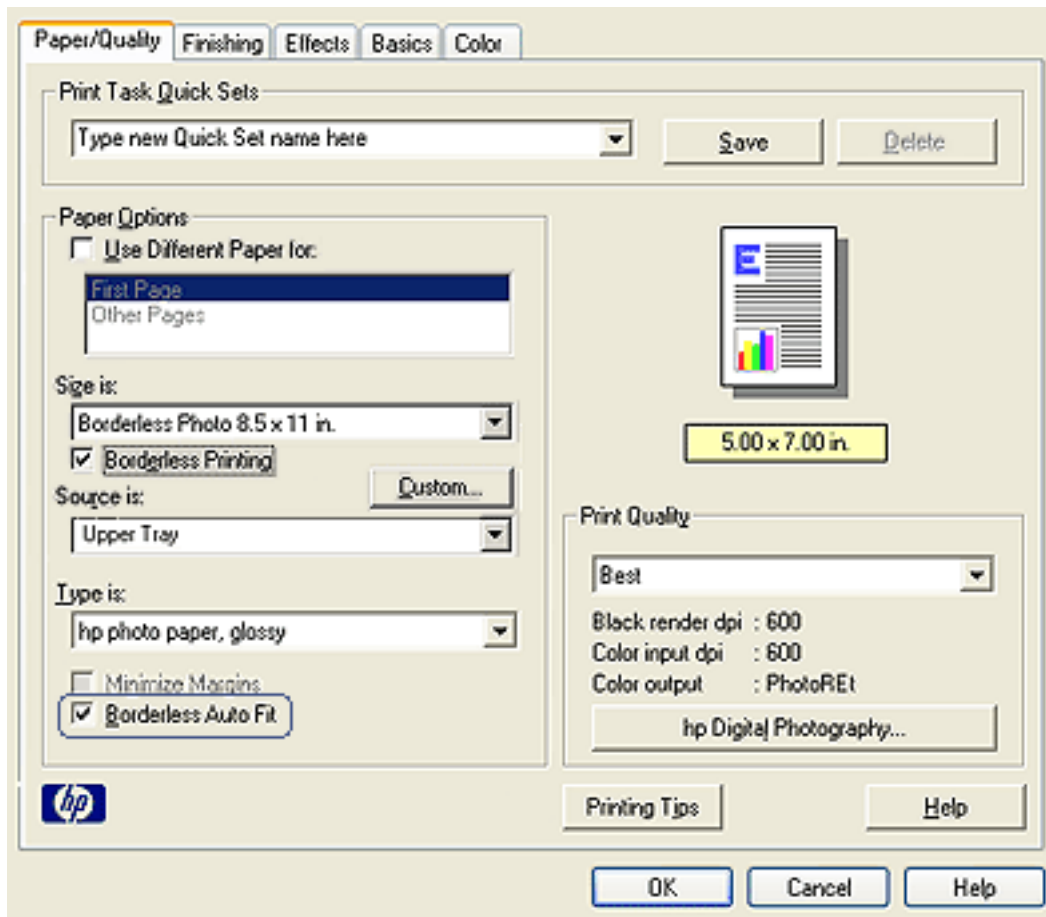
1. Open the file you want to print.
2. Open the [Printer Properties](#) dialog box.
3. Select one of the borderless paper sizes from the [Size is](#) drop-down list, then click the [Borderless Printing](#) checkbox. Verify that the paper size you select matches the size of the paper loaded in the In tray.



4. Select the appropriate paper type in the **Type is** drop-down list. Do not select **Automatic**.
5. Click the **Borderless Auto Fit** checkbox to automatically resize the image to print without a border.



The **Borderless Auto Fit** option is only available for photo paper types.



6. Select any other desired print settings, then click **OK**.

If you printed on photo paper with a tear-off tab, remove the tab to make the document completely borderless.



printing digital photographs

The printer has several features to enhance the quality of digital photographs.

opening the hp digital photography options dialog box

Follow these steps to open the [hp Digital Photography Options](#) dialog box:

1. Open the [Printer Properties](#) dialog box.
2. Click the [Paper/Quality](#) tab, then click the [hp Digital Photography](#) button.

using the hp digital photography options dialog box

Use the [hp Digital Photography Options](#) dialog box to set these options:



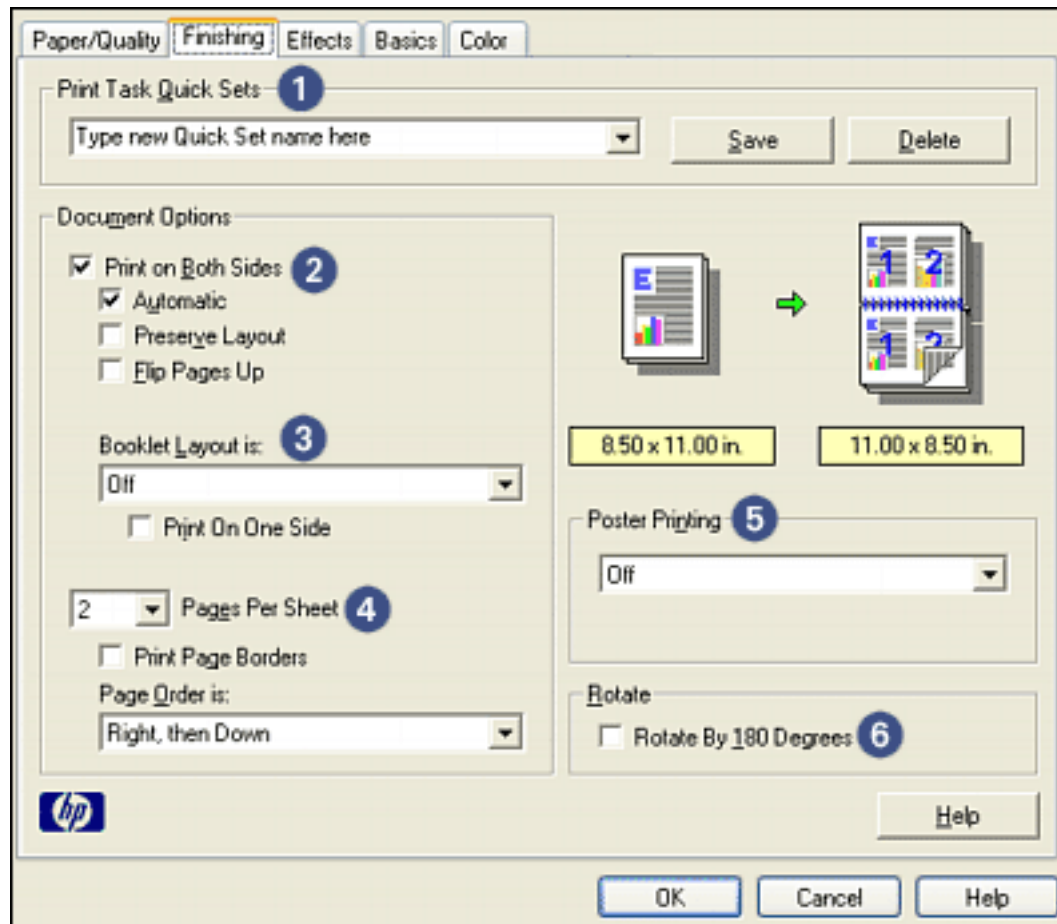
1. **Red Eye Removal:** Click [On](#) to remove or reduce red-eye from the photograph.
2. **Contrast Enhancement:** Adjust contrast to preference. Click [Automatic](#) to allow the printer driver to automatically balance the contrast.
3. **Digital Flash:** Lighten dark images. Click [Automatic](#) to allow the printer driver to automatically balance lightness and darkness.
4. **SmartFocus:** Click [On](#) to allow the printer driver to automatically focus

images.

5. **Sharpness:** Adjust image sharpness to preference. Click [Automatic](#) to allow the printer driver to automatically sharpen the image.
6. **Smoothing:** Adjust distortion to preference. Click [Automatic](#) to allow the printer driver to automatically smooth the image.

finishing tab

The **Finishing** tab allows you to set these options:



1. **Print Task Quick Sets:** See [print task quick sets](#).
2. **Print on Both Sides:** See [two-sided printing](#).
3. **Booklet Layout is:** See [printing a booklet](#).
4. **Pages per Sheet:** See [printing multiple pages on a single sheet of paper](#).
5. **Poster Printing:** Select the number of pages you want your poster printed across to determine the size of your poster.
6. **Rotate By 180 Degrees:** Rotates the printed image 180 degrees.

two-sided printing

Use one of the following methods to print two-sided documents:

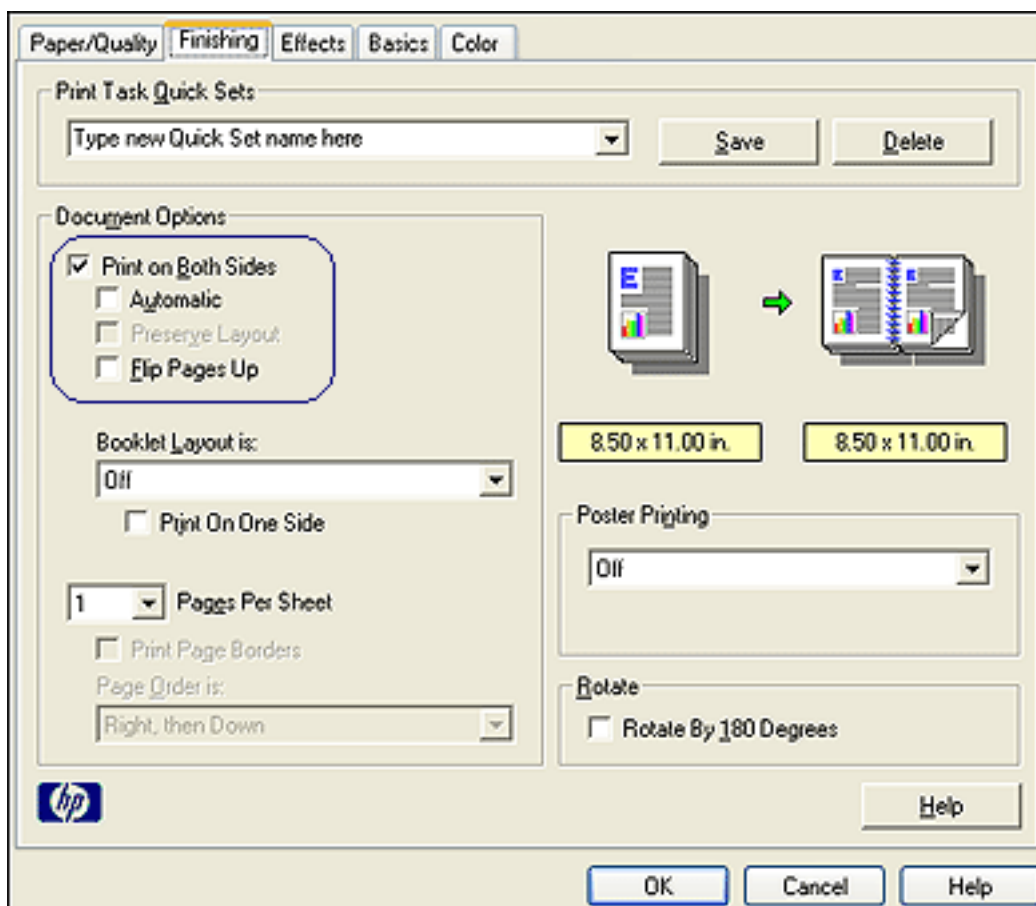
- [manual two-sided printing](#)
- [automatic two-sided printing \(duplexing\)](#)

manual two-sided printing

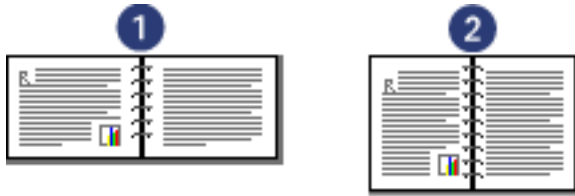
printing instructions

Follow these steps to print a two-sided document manually:

1. Open the [Printer Properties](#) dialog box.
2. Select the [Finishing](#) tab.

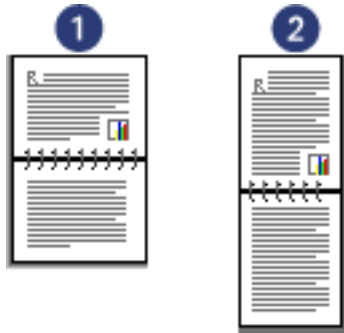


3. Select [Print on Both Sides](#).
4. Deselect the [Automatic](#) checkbox, then do one of the following:
 - For book binding: Verify that [Flip Pages Up](#) is *not* selected.



1. landscape 2. portrait

- For tablet binding: Select **Flip Pages Up**.



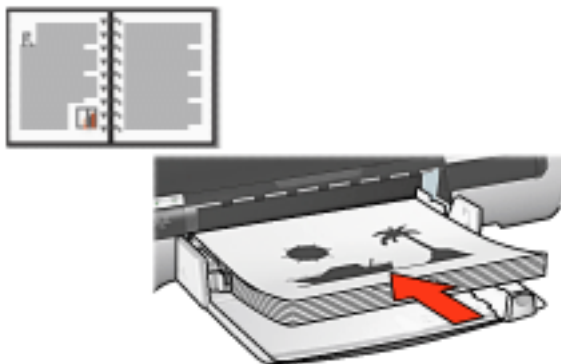
1. landscape 2. portrait

5. Select any other desired print settings, then click **OK**.

The printer prints the odd-numbered pages first.

6. Once the odd-numbered pages have printed, reload the paper, with the printed side facing up, according to the binding type and orientation selected:

- Book binding with portrait orientation: Reload the paper as shown below:



- Book binding with landscape orientation: Reload the paper as shown below:



- Tablet binding with portrait orientation: Reload the paper as shown below:



- Tablet binding with landscape orientation: Reload the paper as shown below:



7. Click [Continue](#) to print the even-numbered pages.

automatic two-sided printing (requires accessory)

To print a two-sided document automatically, the [Two-Sided Printing Accessory](#) (duplexer) must be attached to the printer.

The Two-Sided Printing Accessory (duplexer) only supports certain media types. For a list of supported media types, see the documentation that came with the accessory.

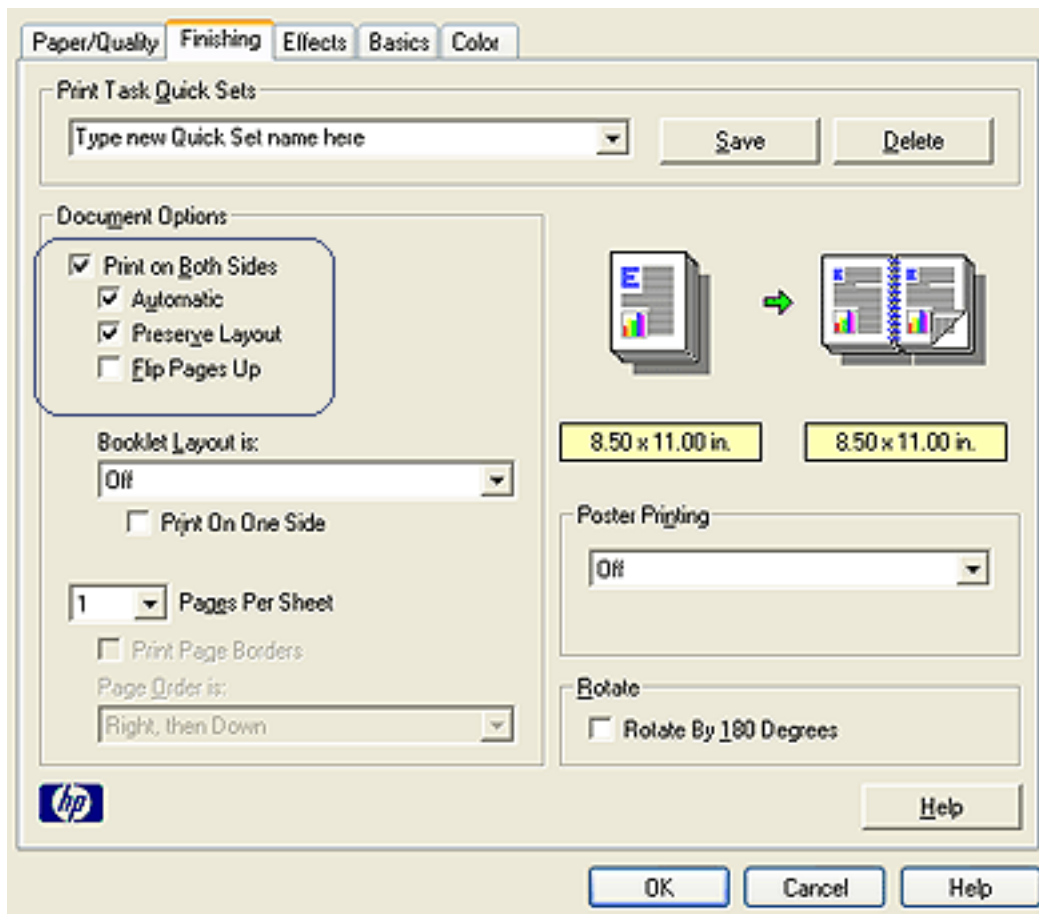
Use [manual two-sided printing](#) to print on an unsupported media type.

printing instructions

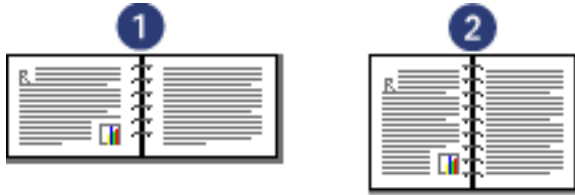
Follow these steps to print a two-sided document automatically:

1. Open the [Printer Properties](#) dialog box.

Select the [Finishing](#) tab.

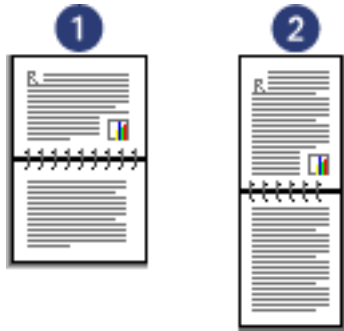


2. Select [Print on Both Sides](#).
3. Verify that the [Automatic](#) checkbox is selected.
4. Do one of the following:
 - o To automatically resize each page to match the document's onscreen layout: Select [Preserve Layout](#).
Not selecting this option may result in unwanted page breaks.
 - o To not resize each page to fit two-sided margins: Verify that [Preserve Layout](#) is *not* selected.
5. Select a binding option:
 - o For book binding: Verify that [Flip Pages Up](#) is *not* selected.



1. landscape 2. portrait

- o For tablet binding: Select **Flip Pages Up**.



1. landscape 2. portrait

6. Select any other desired print settings, then click **OK**.

After the first side of the page is printed, the printer pauses while the ink dries. Once the ink is dry, the paper is pulled back into the duplexer and the reverse side of the page is printed.



Do not remove the paper from the duplexer until both sides of the page have been printed.

two-sided printing accessory (duplexer)

The duplexer is a special hardware device that enables the printer to automatically print on both sides of a page.

Using a duplexer with your printer has several advantages. It allows you to:

- Print on both sides of a page without manually reloading the page.
- Print long documents quickly and efficiently.
- Use less paper by printing on both sides of paper sheets.
- Create professional-looking brochures, reports, newsletters, and other special items.

If the duplexer is not packaged with your printer, it can be purchased separately from an authorized HP dealer.



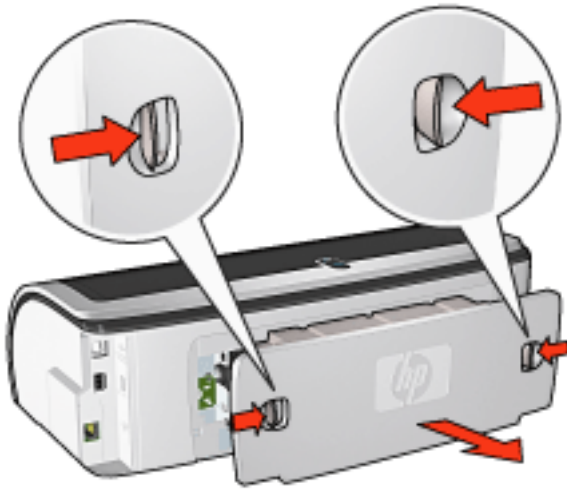
The duplexer is not available in all countries/regions.



installing the duplexer

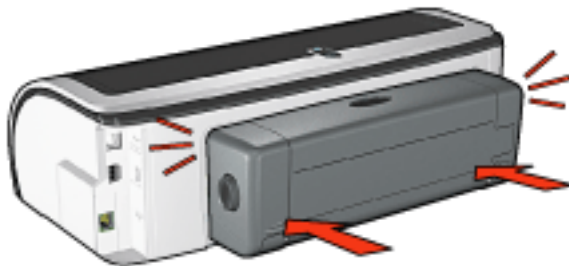
Follow these steps to attach the duplexer to your printer:

1. Push the two latch handles on the printer's Rear Access Door toward each other, then remove the door.



Do not discard the Rear Access Door. In order to print, the duplexer or the Rear Access Door must be attached to the printer.

2. Insert the duplexer in the back of the printer until both sides snap into place.



Do not press the buttons on either side of the duplexer when installing it in the printer. Use the buttons only when removing the duplexer from the printer.

printing with the duplexer

For instructions on printing a two-sided document with the duplexer, click [here](#).

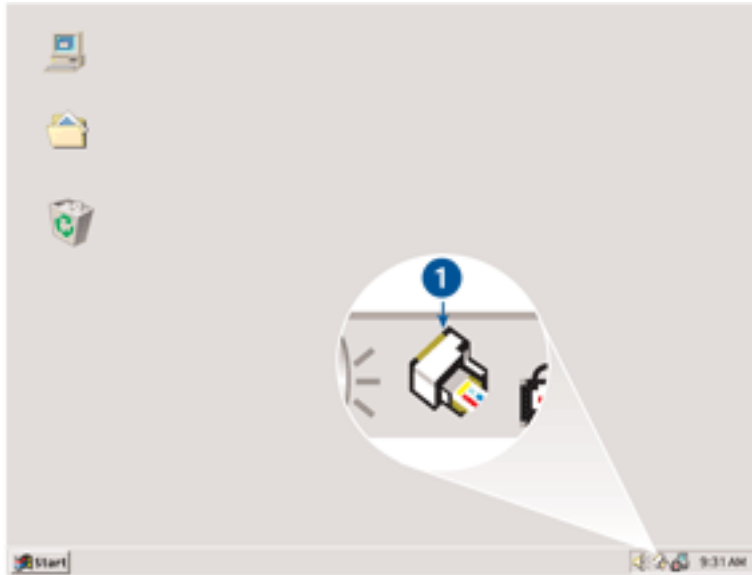
For instructions on making automatic two-sided printing the default print setting for your printer, click [here](#).

supported media types

The duplexer only works with certain media types. For a list of supported media, see the specifications in the documentation that came with the duplexer.

changing default settings

Use the taskbar icon to change the printer's default print settings. The default print settings apply to all documents printed by the printer.



1. taskbar icon

using the taskbar icon shortcut menu

Follow these steps to change the printer's default settings:

1. Click the taskbar icon.

The [Printer Properties](#) dialog box appears.

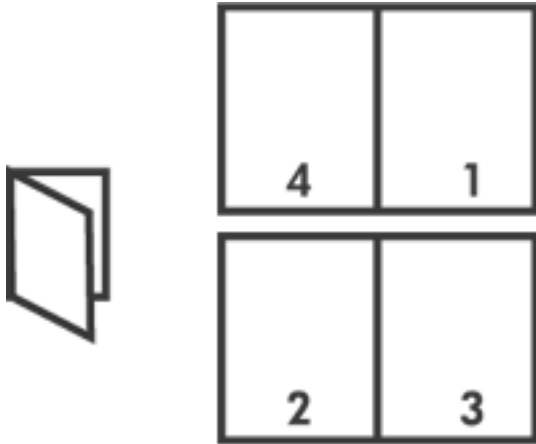
2. Select the options you want to use as the default settings.
3. Click [OK](#).

A dialog box appears stating that the new settings will be used every time you print. If you do not want to see this dialog box again, select [Don't show me this message again](#).

4. Click [OK](#) to save the new default print settings.

printing a booklet

Booklet printing automatically arranges and resizes the pages of a document so when the document is folded into a booklet, the page order is correct.



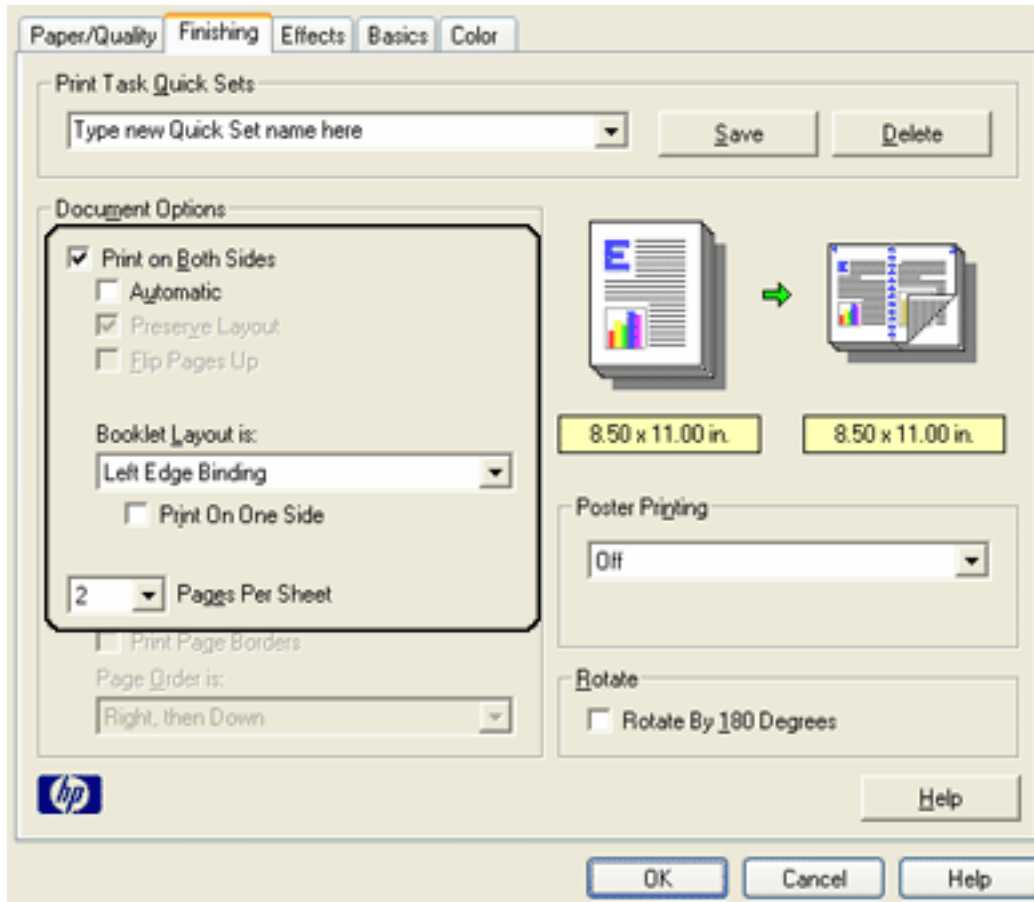
For the appropriate instructions, select one of the following topics:

- [printing a booklet](#)
- [printing a booklet using the two-sided printing accessory](#)

printing a booklet

Follow these steps to print a booklet:

1. Open the [Printer Properties](#) dialog box.
2. Select the [Finishing](#) tab.



3. Select [Print on Both Sides](#).
4. Verify that [Automatic](#) is *not* selected.
5. Select a binding option in the [Booklet Layout is](#) drop-down list:
 - **Right Edge Binding**: Places the binding on the right side of the booklet.



- **Left Edge Binding**: Places the binding on the left side of the booklet.



6. Do one of the following:
 - To leave every other page of the booklet blank, select [Print On One Side](#).

- To print on all pages in the booklet, leave **Print On One Side** unchecked.
7. Select any other desired print settings, then click **OK**.
 8. When prompted, reload the paper in the In tray as shown below.



9. Click **Continue** to finish printing the booklet.

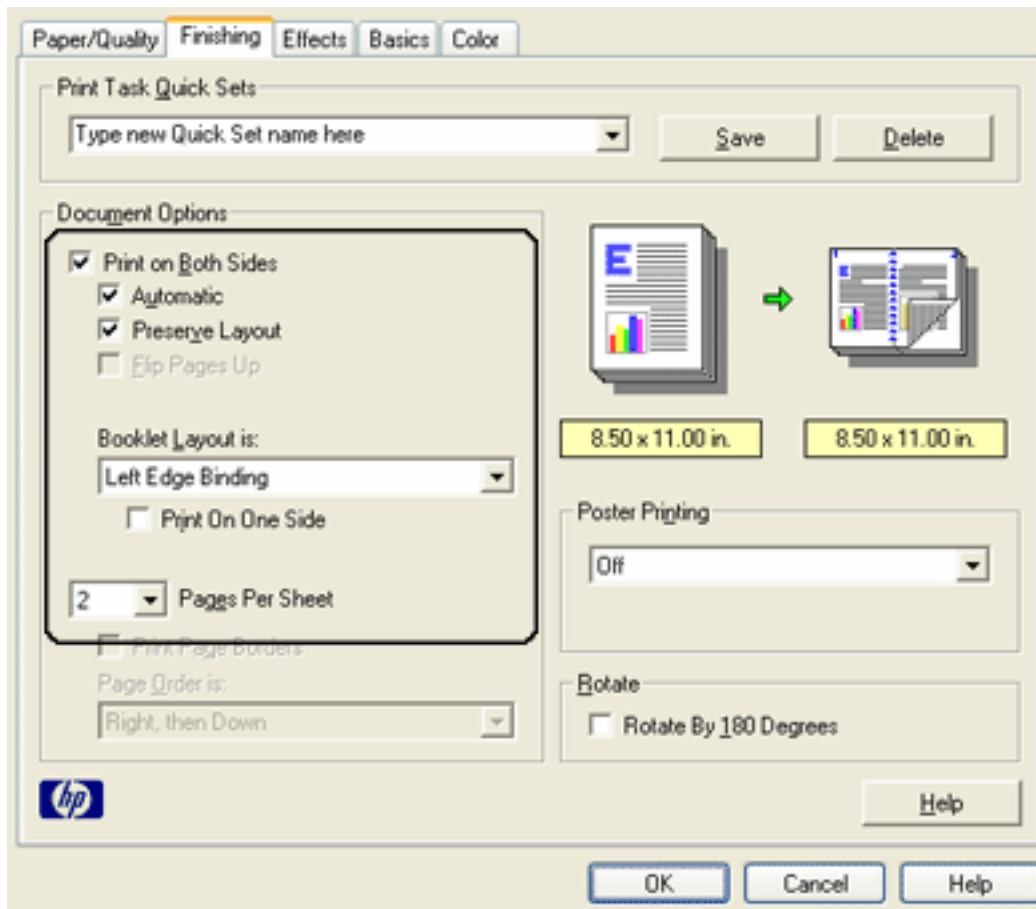
printing a booklet using the two-sided printing accessory

Follow these steps to print a booklet using the Two-Sided Printing Accessory:



The Two-Sided Printing Accessory is optional. For more information, click [here](#).

1. Open the [Printer Properties](#) dialog box.
2. Select the **Finishing** tab.



3. Select [Print on Both Sides](#).
4. Select [Automatic](#).
5. Select [Preserve Layout](#).
6. Select a binding option in the [Booklet Layout is](#) drop-down list:
 - **Right Edge Binding**: Places the binding on the right side of the booklet.



- **Left Edge Binding**: Places the binding on the left side of the booklet.



7. Do one of the following:

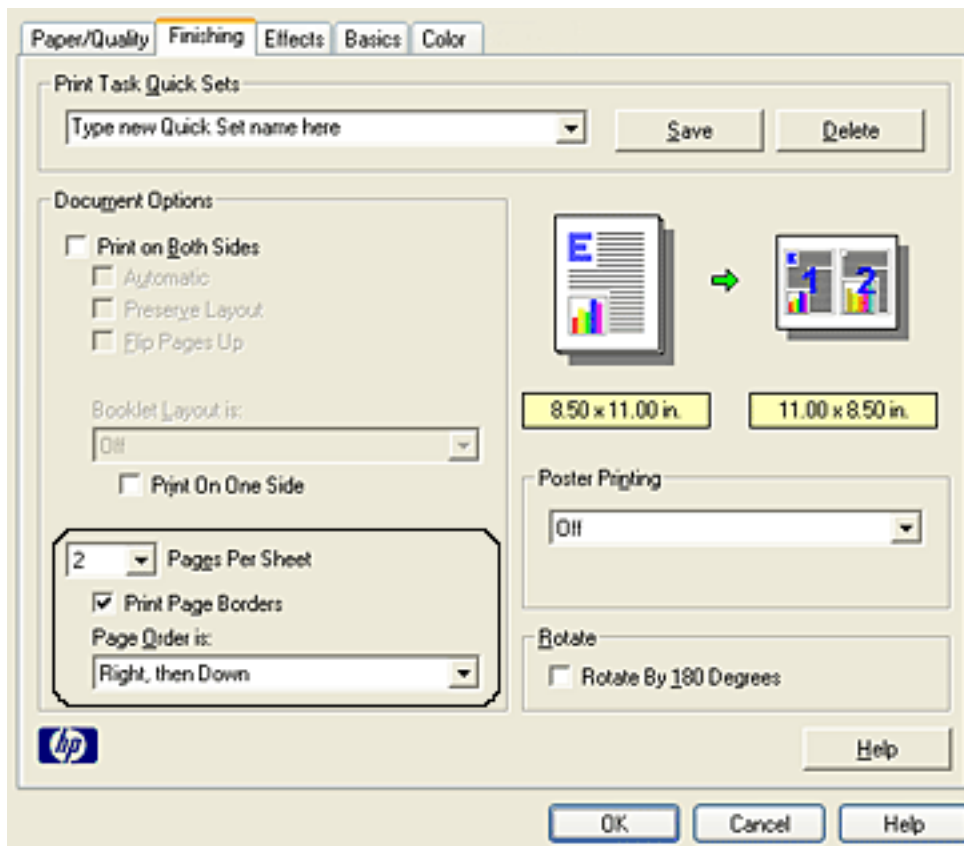
- To leave every other page of the booklet blank, select [Print On One Side](#).
 - To print on all pages in the booklet, leave [Print On One Side](#) unchecked.
8. Select any other desired print settings, then click [OK](#).

printing multiple pages on a single sheet of paper

The printer software allows you to print multiple pages of a document on a single sheet of paper. The printer software automatically resizes the document text and images to fit on the printed page.

Follow these steps to print multiple pages of a document on a single sheet of paper:

1. Open the [Printer Properties](#) dialog box.
2. Click the [Finishing](#) tab.



3. From the [Pages Per Sheet](#) drop-down list, select the number of pages you want to appear on each sheet of paper.
4. If you want a border to appear around each page image printed on the sheet of paper, click the [Print Page Borders](#) checkbox.
5. Select a layout for each sheet of paper from the [Page Order Is](#) drop-down list.
6. Select any other desired print settings, then click [OK](#).

posters

guidelines

- After the sections of a poster have been printed, trim the edges of the sheets, then tape the sheets together.



- In tray capacity: Up to 150 sheets

preparing to print

1. Raise the Out tray, then remove all paper from the In tray.
2. Slide the paper width guide all the way to the left, then pull out the paper length guide.
3. Place plain paper in the In tray, pushing the paper into the printer until it stops.



4. Slide the paper guides *firmly* against the paper.
5. Lower the Out tray.

printing

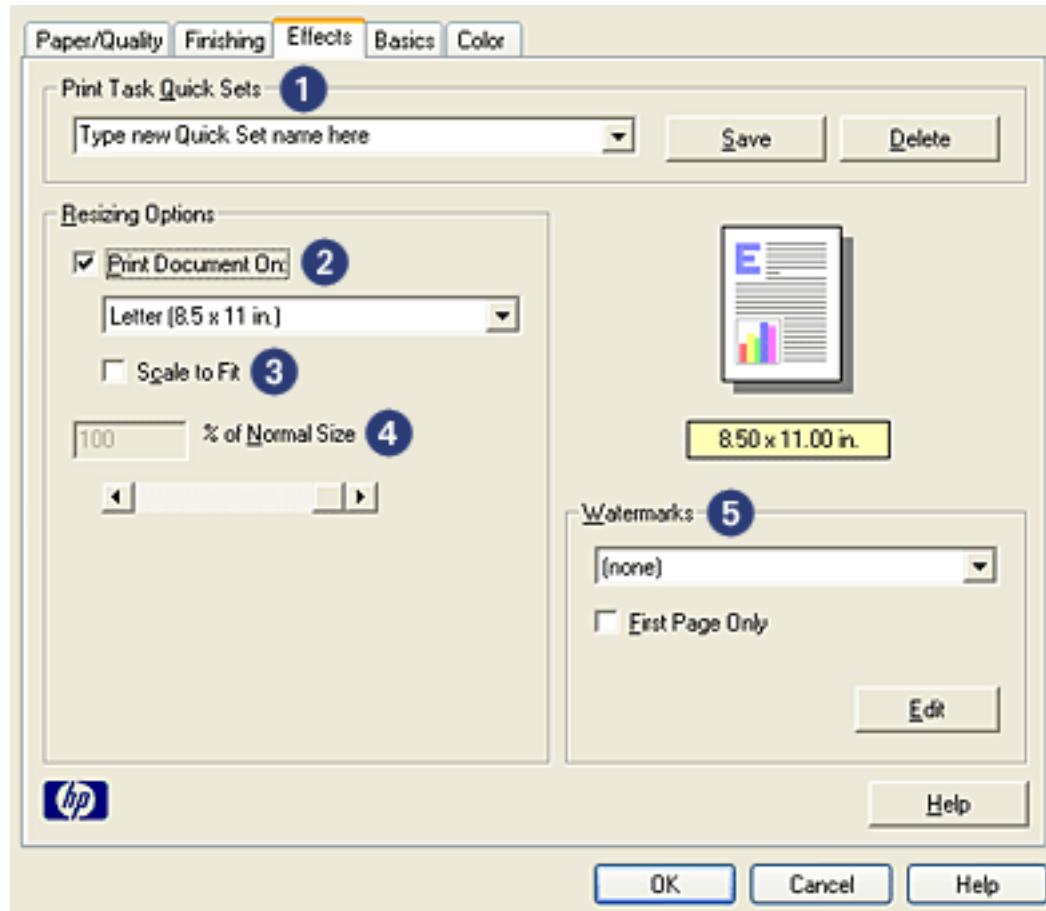
1. Open the [Printer Properties](#) dialog box, then select the following:

tab	setting
Paper/ Quality	Size is: Appropriate size Source is: Upper Tray or Lower Tray Type is: Automatic or Plain Paper
Finishing	Poster Printing: 2 x 2, 3 x 3, 4 x 4, or 5 x 5
Basics	Orientation: Appropriate orientation

2. Select any other desired [print settings](#), then click **OK**.

effects tab

The **Effects** tab allows you to set the following options:



1. **Print Task Quick Sets:** See [print task quick sets](#).
2. **Print Document On:** Prints a document on a paper size different than the paper size for which it is formatted. Select the target paper size from the drop-down list.
3. **Scale to Fit:** Automatically resizes the printed image to fit on the paper size selected in the [Print Document On](#) drop-down list.
4. **% of Normal Size:** Specify the percentage to which you want to reduce or enlarge the printed image. For example, enter **70** to reduce the printed image to 70 percent of its normal size.
5. **Watermarks:** See [watermarks](#).

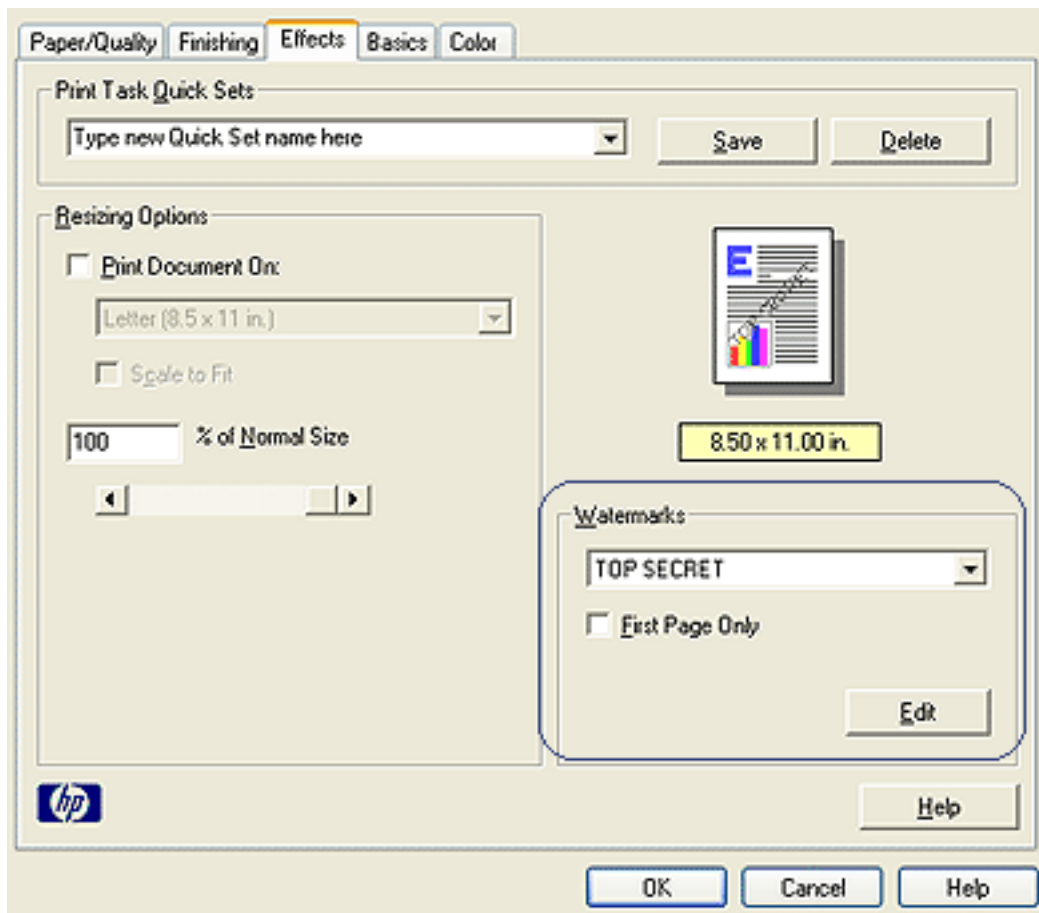
watermarks

Watermarks appear as background printing on documents.

applying an existing watermark to a document

Follow these steps to apply an existing watermark to a document:

1. Open the [Printer Properties](#) dialog box.
2. Click the [Effects](#) tab.



3. Select a watermark from the [Watermarks](#) drop-down list.
If you do not want to use one of the listed watermarks, [create a new watermark](#).
4. Do one of the following:
 - If you want the watermark to appear on the first page only, select [First Page Only](#).
 - If you want the watermark to appear on all printed pages, leave [First Page](#)

Only unchecked.

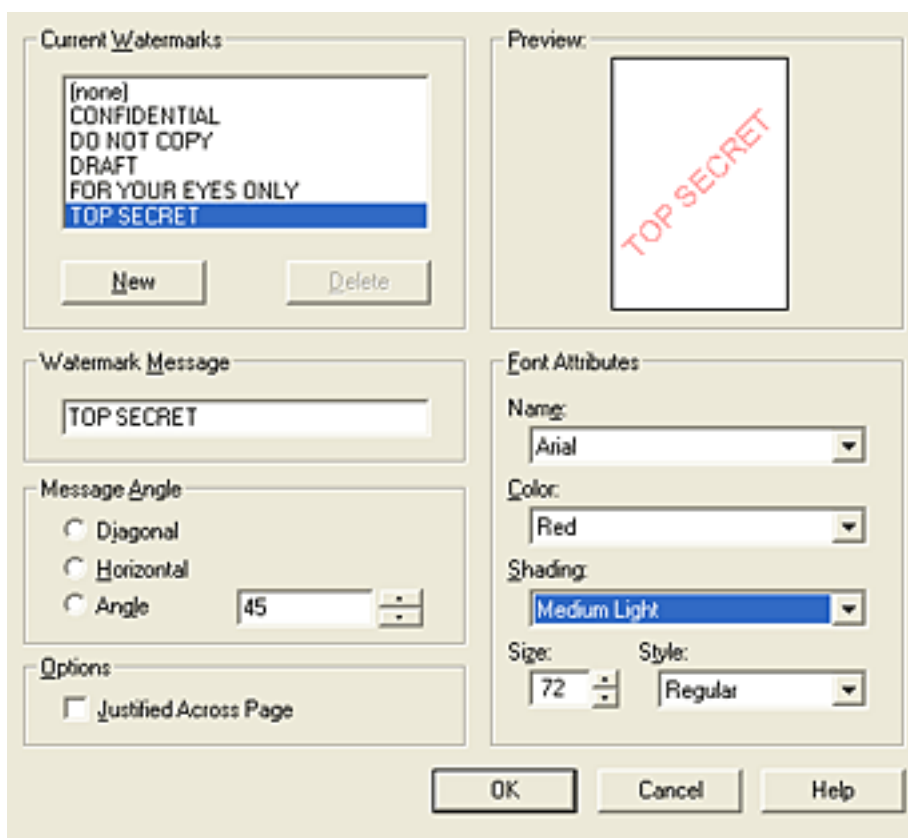
5. Print the document according to the instructions for the paper type.

creating or changing a watermark

Follow these steps to create or change a watermark:

1. Open the [Printer Properties](#) dialog box.
2. Click the [Effects](#) tab.
3. Click the [Edit](#) button.

The [Watermark Details](#) dialog box appears.



4. Do one of the following:
 - o Click the [New](#) button, or
 - o Select an existing watermark to change.
5. Enter the watermark message, message angle, and font attributes.
6. After you have set the watermark details, click [OK](#).

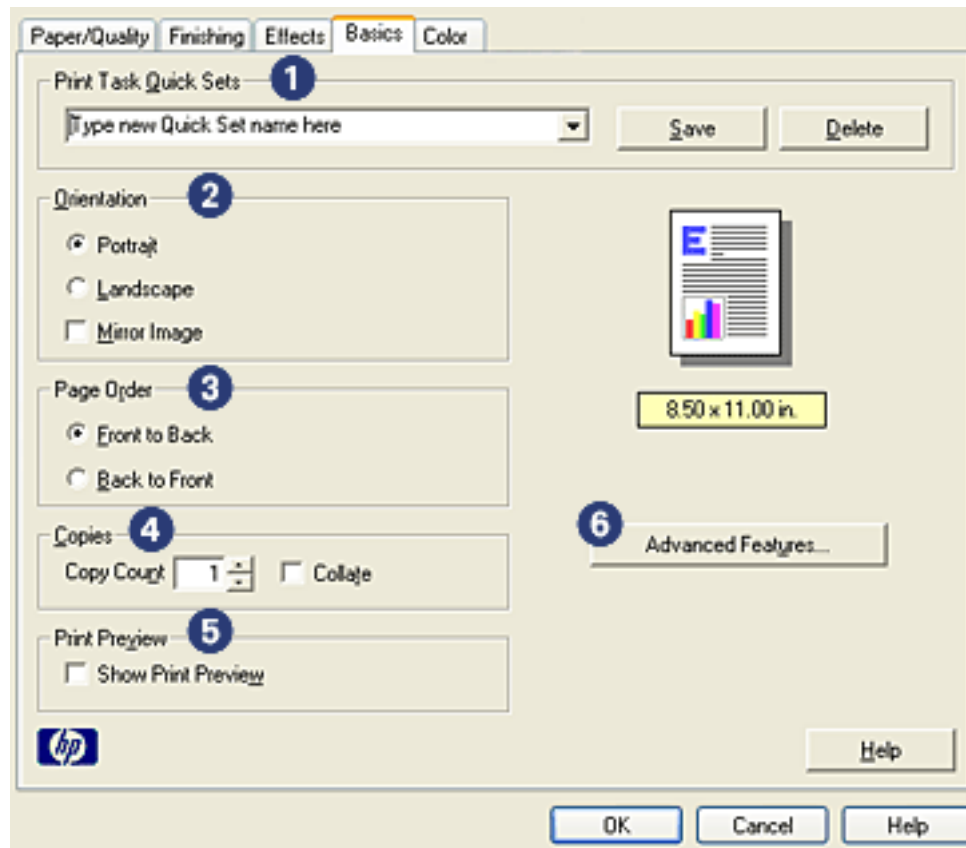
For instructions on applying watermarks, click [here](#).



To find more information about options on each tab screen, point to an option and click the right mouse button to display the [What's This?](#) dialog box. Click [What's This?](#) to view more information about the selected item.

basics tab

The **Basics** tab allows you to set the following options:

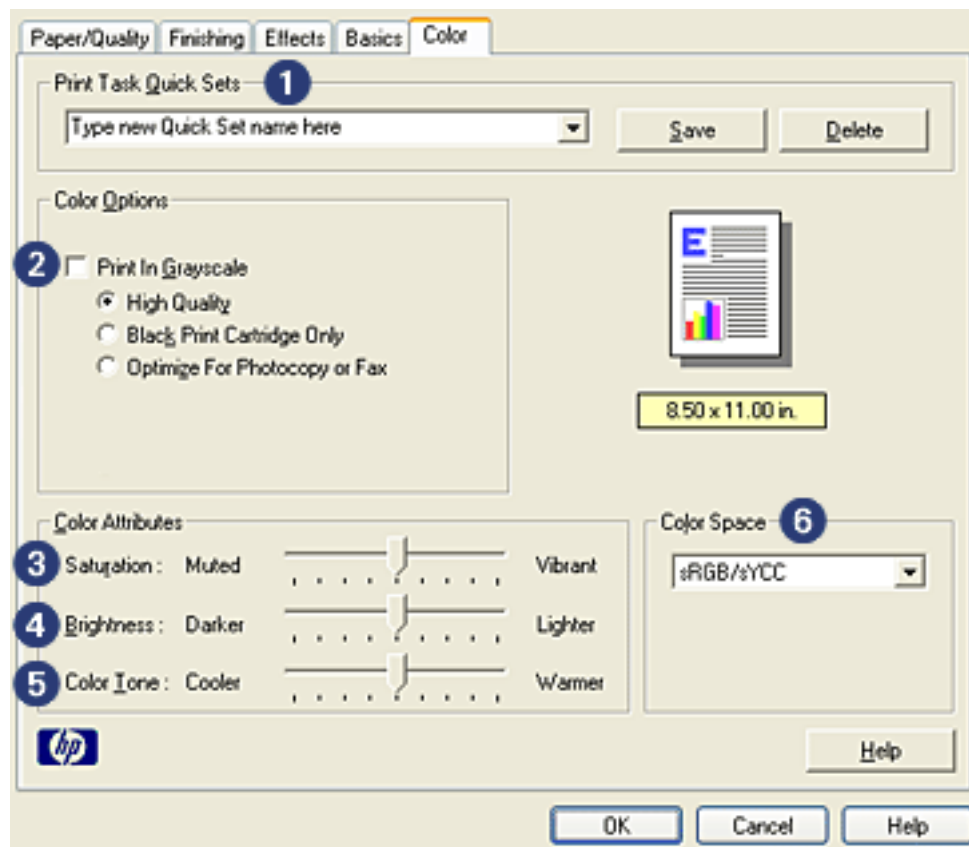


1. **Print Task Quick Sets:** See [print task quick sets](#).
2. **Orientation:** Specify the page layout:
 - **Portrait:** The printed page is longer than it is wide.
 - **Landscape:** The printed page is wider than it is long.
 - **Mirror Image:** Reverses the printed image from left to right.
3. **Page Order:** Select one of the following:
 - **Front to Back:** First page will be on top when the document is finished printing.
 - **Back to Front:** Last page will be on top when the document is finished printing.
4. **Copies:** Use to print multiple copies of a document.
 - **Copy Count:** Number of copies printed.

- **Collate:** Prints each copy of the document in its entirety when printing multiple copies.
5. **Print Preview:** Select to view the layout of a document before it prints.
 6. **Advanced Features:** See [advanced features](#).

color tab

The **Color** tab allows you to set these options:



1. **Print Task Quick Sets:** See [print task quick sets](#).
2. **Print in Grayscale:** Prints in shades of gray.
 - **High Quality:** Uses the tri-color print cartridge and/or photo print cartridge to print high-quality grayscale.
 - **Black Print Cartridge Only:** Uses the black print cartridge to print grayscale.
 - **Optimize For Photocopy or Fax:** Uses the black print cartridge to print grayscale suitable for photocopying and faxing.
3. **Saturation:** Adjusts the intensity of printed colors.
4. **Brightness:** Adjusts the lightness or darkness of printed colors.
5. **Color Tone:** Adjusts the warmth or coolness of printed colors.
6. **Color Space:** See [digital photography technologies](#).

digital photography technologies

The printer software offers several technical features for printing digital photographs.

PhotoREt printing

PhotoREt offers the best combination of print speed and quality for your image.

Follow these steps to print with PhotoREt technology:

1. Open the [Printer Properties](#) dialog box.
2. Select the [Paper/Quality](#) tab.
3. Select [Best](#) from the [Print Quality](#) drop-down list.
4. Select any other desired [print settings](#), then click [OK](#).

4800 x 1200 optimized dpi

4800 x 1200 optimized dpi is the highest quality resolution for this printer. When 4800 x 1200 optimized dpi is selected in the printer driver, the tri-color printcartridge prints in the 4800 x 1200 optimized dpi mode (up to 4800 X 1200 optimized dpi color and 1200-input dpi). If a [photo print cartridge](#) is also installed, the print quality is enhanced. A photo print cartridge may be purchased separately if it is not included with your printer.

Follow these steps to print in 4800 x 1200 optimized dpi mode:

1. Open the [Printer Properties](#) dialog box.
2. Select the [Paper/Quality](#) tab.
3. Select the appropriate photo paper type from the [Paper Type](#) drop-down list.
4. Select [Maximum dpi](#) from the [Print Quality](#) drop-down list.
5. Select any other desired [print settings](#), then click [OK](#).

printing Exif Print-enhanced photographs

Exif Print (Exchangeable Image File Format 2.2) is an international digital imaging standard that simplifies digital photography and enhances printed photographs. When a photograph is taken with an Exif Print-enabled digital camera, Exif Print captures information such as exposure time, type of flash, and color saturation, and stores it in the image's file. The HP Deskjet printer software then uses this information to automatically perform image specific enhancements, resulting in outstanding photographs.

Printing Exif Print-enhanced photos requires:

- A digital camera that supports Exif Print
- Exif Print-enabled photo software
- HP Deskjet printer software that supports Exif Print
- Windows 98, 2000, Me, or XP

Follow these steps to print Exif Print-enhanced photographs:

1. Open the file you want to print using Exif Print-enabled photo software.
2. Open the [Printer Properties](#) dialog box.
3. Select the [Paper/Quality](#) tab.
4. Select the appropriate photo paper type from the [Type is](#) drop-down list.
5. Select [Normal](#) or [Best](#) from the [Print Quality](#) drop-down list.
6. Select any other desired [print settings](#), then click [OK](#).

The printer software automatically optimizes the printed image.

color space

Color space defines the range of colors that can be printed. The printer software translates the colors of your document from their current color space to the color space selected.

The following color spaces are available:

- sRGB/sYCC
- Adobe RGB
- ICM (Image Color Management)

sRGB/sYCC

sRGB/sYCC is an appropriate color space for most print jobs. It is used for most Web-based documents and current imaging devices.

Follow these steps to use the sRGB/sYCC color space:

1. Open the [Printer Properties](#) dialog box.
2. Select the [Color](#) tab.
3. Select [sRGB/sYCC](#) from the [Color Space](#) drop-down list.
4. Select any other desired [print settings](#), then click [OK](#).

Adobe RGB

Adobe RGB is an emerging color space that offers more colors than sRGB/sYCC, but which only works for images.

When printing from a professional application using Adobe RGB, turn off the color management in the application and allow the printer software to manage the color space.

Follow these steps to use the Adobe RGB color space:

1. Open the [Printer Properties](#) dialog box.
2. Select the [Paper/Quality](#) tab, then select the following:
 - An HP photo paper from the [Type is](#) drop-down list.
 - [Best](#) or [Maximum dpi](#) from the [Print Quality](#) drop-down list.
3. Select the [Color](#) tab.
4. Select [Adobe RGB](#) from the [Color Space](#) drop-down list.
5. Select any other desired [print settings](#), then click [OK](#).

If the the Adobe RGB color space is used for an image which was created in another color space, then printed colors may appear more vivid.

ICM (Image Color Management)

ICM is a Microsoft technology that helps ensure that a color image, graphic or text object is printed as close as possible to its original color and helps keep its colors consistent and accurate

1. Open the [Printer Properties](#) dialog box.
2. Select the [Color](#) tab.
3. Select [ICM](#) from the [Color Space](#) drop-down list.
4. Select any other desired [print settings](#), then click [OK](#).

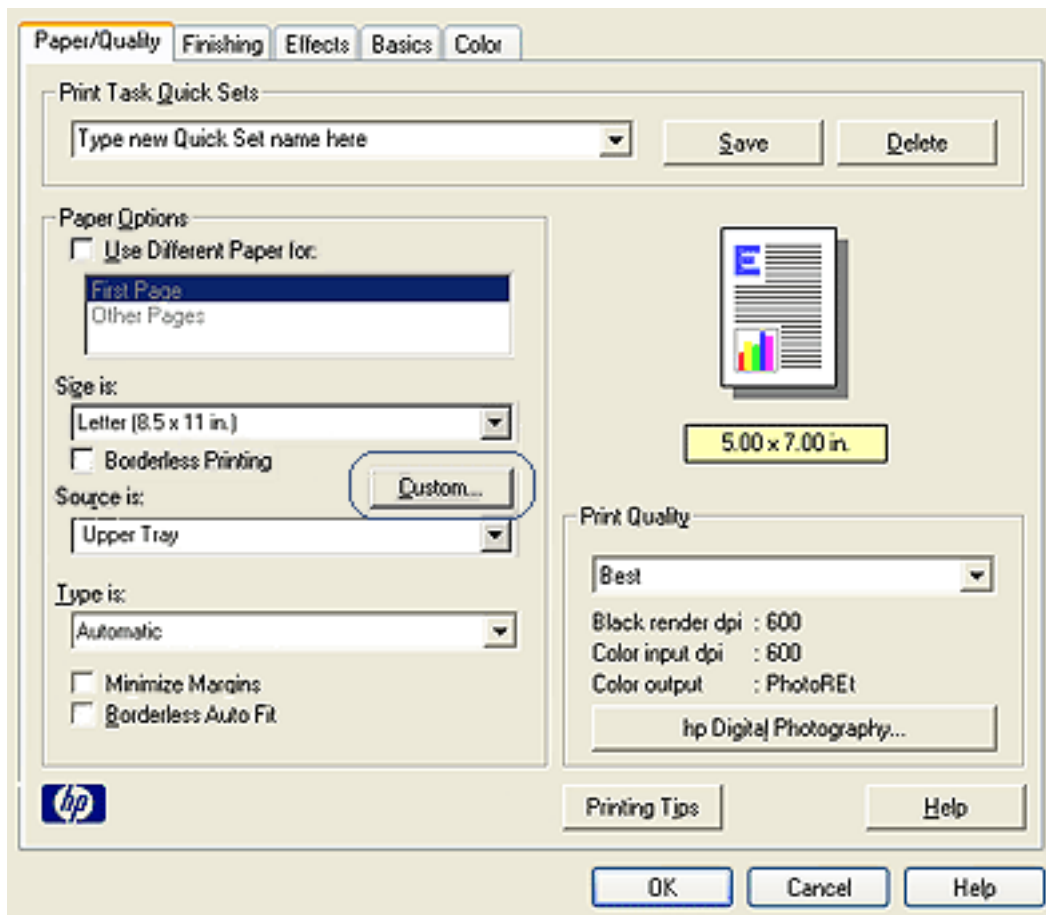
setting a custom paper size

Use the [Custom Paper Size](#) dialog box to print on a special paper size.

defining a custom paper size

Follow these steps to define a custom paper size:

1. Open the [Printer Properties](#) dialog box.
2. Click the [Paper/Quality](#) tab.



3. Click the [Custom](#) button.

The [Custom Paper Size](#) dialog box is displayed.

The image shows a 'Custom Paper Size' dialog box. At the top, there is a 'Name' section with a dropdown menu currently showing 'Custom 1' and a 'Save' button to its right. Below the 'Name' section is the 'Paper Size' section, which contains two input fields: 'Width' and 'Length'. The 'Width' field contains the value '8.5' and has '(3.00 - 8.50)' written below it. The 'Length' field contains the value '11.0' and has '(5.00 - 18.00)' written below it. To the right of the 'Paper Size' section is the 'Units' section, which has two radio buttons: 'Inches' (which is selected) and 'Millimeters'. At the bottom of the dialog box are two buttons: 'OK' and 'Cancel'.

4. Select a custom paper size name from the **Name** drop-down list.
5. Enter the paper dimensions in the **Width** and **Length** boxes.
The minimum and maximum paper dimensions appear beneath each of the boxes.
6. Select the unit of measurement: **Inches** or **Millimeters**.
7. Click **Save** to save the custom paper size.
You can save up to five custom paper sizes.
8. Click **OK** to exit the **Custom Paper Size** dialog box.

selecting a paper type

The printer software offers these options for selecting a paper type:

- [use the automatic paper-type sensor](#)
- [select a specific paper type](#)

using the automatic paper-type sensor

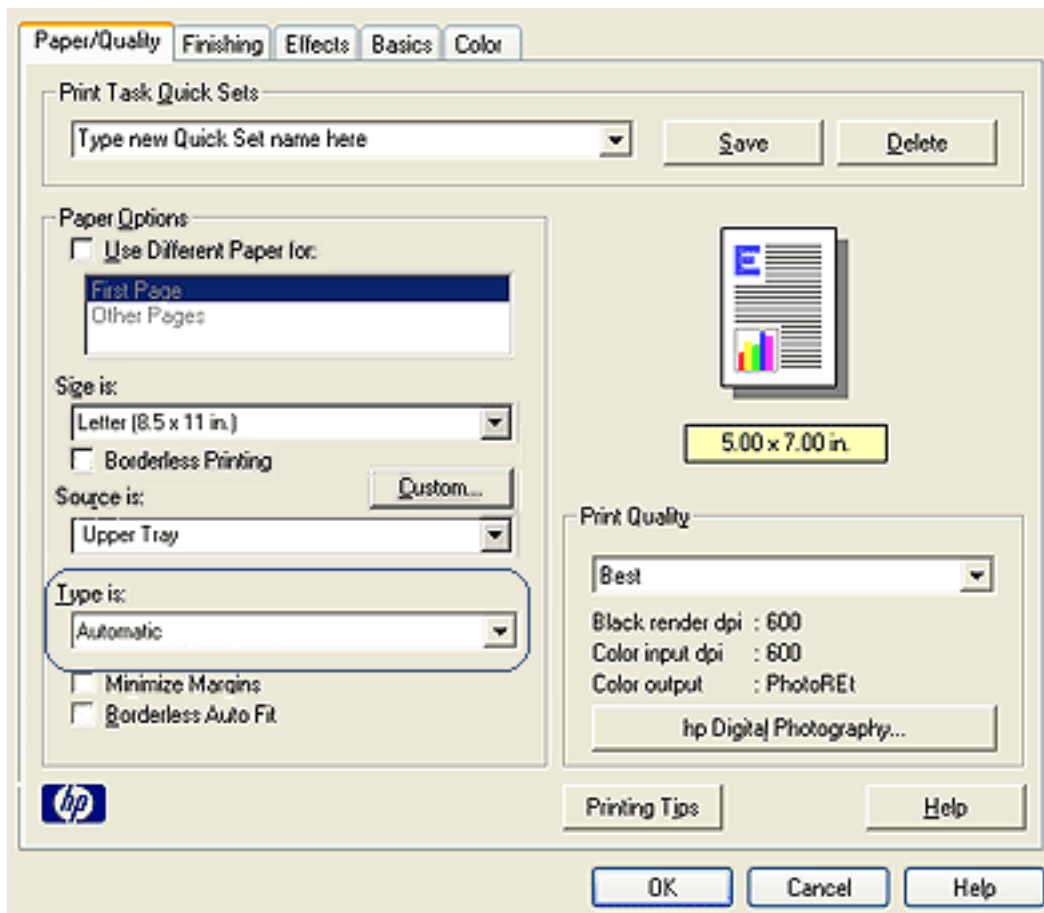
The [Automatic Paper-Type Sensor](#) automatically selects the print settings appropriate for the media be printed on, particularly when used with HP paper and media.



The [Automatic Paper-Type Sensor](#) cannot be used for documents printed from the [250-Sheet Plain Paper Tray Accessory](#).

Follow these steps to use the automatic paper-type sensor:

1. Open the [Printer Properties](#) dialog box.
2. Select the [Paper/Quality](#) tab.



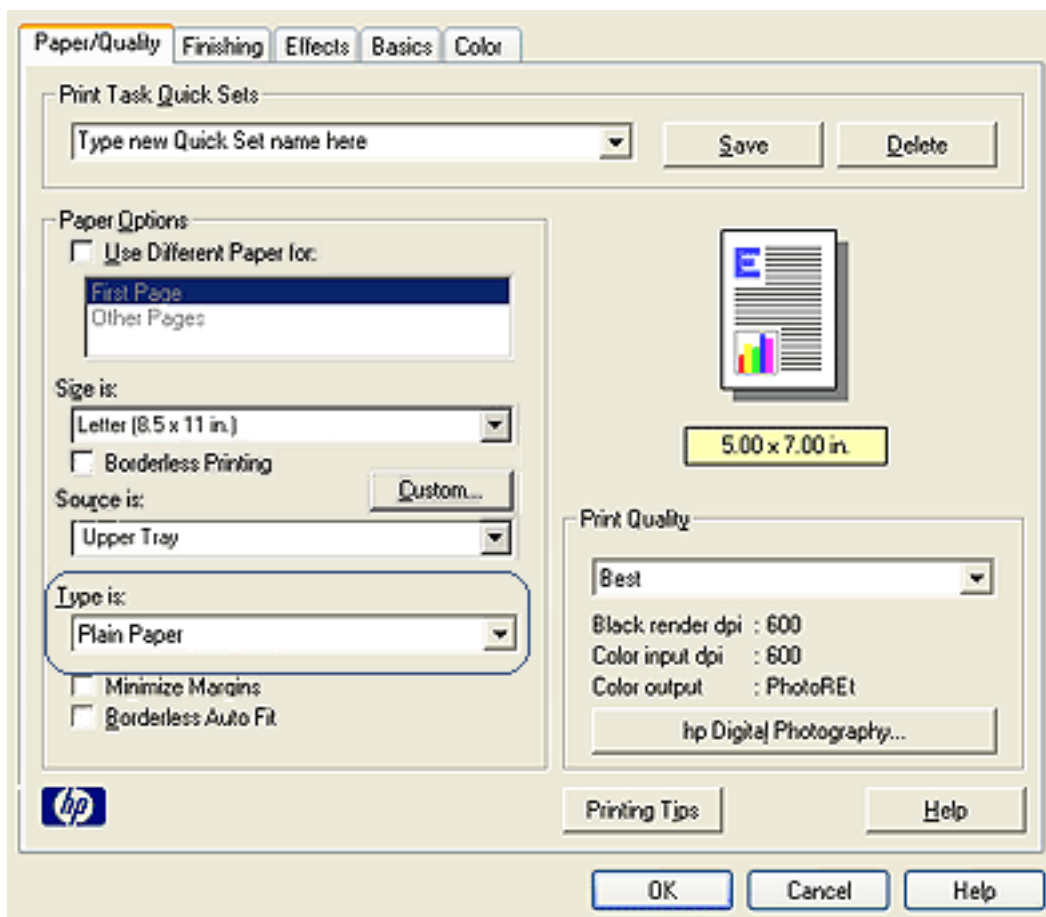
3. Select [Automatic](#) from the [Type is](#) drop-down list.
4. Select any other desired print settings, then click [OK](#).

selecting a specific paper type

When printing a higher-quality printout, it is recommended that you select a specific paper type.

Follow these steps to select a specific paper type:

1. Open the [Printer Properties](#) dialog box.
2. Select the [Paper/Quality](#) tab.



3. Select the paper type from the [Type is](#) drop-down list.
4. Select any other desired print settings, then click [OK](#).

automatic paper-type sensor

The Automatic Paper-Type Sensor automatically selects the print settings appropriate for the media being printed on, particularly when used with HP paper and media.

When the Automatic Paper-Type Sensor is engaged, the printer scans the first page of a document with a blue optical sensor light to determine the best paper-type setting. Once the paper-type setting is determined, the page is printed.

For information about using the Automatic Paper-Type Sensor, click [here](#).



The Automatic Paper-Type Sensor is not available for documents printed from the [250-Sheet Plain Paper Tray Accessory](#).



Do not place the printer in direct sunlight. Direct sunlight can interfere with the Automatic Paper-Type Sensor.

printing a screen image

Use the [HP Print Screen Utility](#) to print the image displayed on your computer's monitor.

configuring the hp print screen utility

Follow these steps to configure the [HP Print Screen Utility](#):

1. Go to printer utilities, then click [print screen](#).
2. Select the following configuration options as desired:
 - **Unload/Load HP Print Screen:** Activates or deactivates the utility.
 - **Start with Windows:** Sets the utility to start when Windows is started.
 - **Capture screen:** Prints the screen image.
 - **Orientation:** Toggles between landscape and portrait mode.
3. Click [OK](#).

printing instructions

Follow these steps to print a screen image:

1. Verify that the HP printer is your computer's default printer.
2. Load either Letter or A4 paper in the In tray.
3. Do one of the following:
 - To print the entire desktop: Press the [Print Screen](#) key on the keyboard.
 - To print only the active window: Press the [Alt](#) key and the [Print Screen](#) key simultaneously.

plain paper

guidelines

In tray capacity: Up to 150 sheets

preparing to print

1. Raise the Out tray, then remove all paper from the In tray.
2. Slide the paper width guide all the way to the left.
3. Do one of the following according to the paper size:
 - Letter, Executive, and A4: Pull out the paper length guide.
 - Legal: Pull out the paper length guide, then pull out the In tray extension.
4. Place the paper in the In tray.
5. Slide the paper guides *firmly* against the paper.



1. plain paper



2. legal paper

6. Lower the Out tray.

loading the 250-sheet plain paper tray accessory

For instructions on loading the 250-Sheet Plain Paper Tray Accessory, click [here](#).



If the 250-Sheet Plain Paper Tray Accessory is not included with your printer, it may be purchased separately from an authorized HP dealer. The accessory is not available in all countries/regions.

printing

1. Open the [Printer Properties](#) dialog box, then select the following:

tab	setting
Paper/ Quality	Size is: Appropriate paper size Source is: Upper Tray Type is: Automatic or Plain Paper



If you have the 250-Sheet Plain Paper Tray Accessory installed, choose [Lower Tray](#) in **Source is**, and choose [Plain Paper](#) in **Type is**.

2. Select any other desired [print settings](#), then click **OK**.

envelopes

guidelines

- Avoid using envelopes that: have clasps or windows; have thick, irregular, or curled edges; are shiny or embossed; are wrinkled, torn, or otherwise damaged.
- Align the envelope edges before inserting them in the In tray.
- In tray capacity: Up to 20 envelopes

preparing to print a single envelope

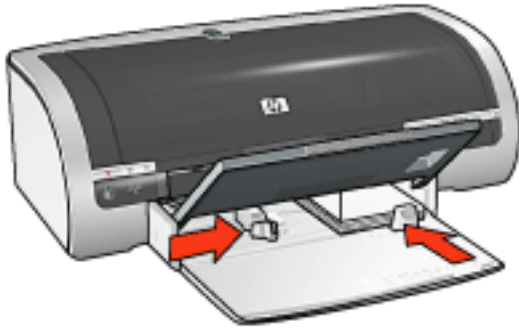
1. Place the envelope, with the printable side down and the flap to the left, into the single envelope slot.



2. Push the envelope into the printer until it stops.

preparing to print a stack of envelopes

1. Raise the Out tray, then remove all paper from the In tray.
2. Slide the paper width guide all the way to the left, then pull out the paper length guide.
3. Place the envelopes, with the printable sides down and the flaps to the left, into the right side of the In tray. Push the envelopes into the printer until they stop.



4. Slide the paper guides *firmly* against the envelopes.
5. Lower the Out tray.

printing

1. Open the [Printer Properties](#) dialog box, then select the following:

tab	setting
Paper/ Quality	Size is: Appropriate envelope size Type is: Automatic or Plain Paper

2. Select any other desired [print settings](#), then click **OK**.

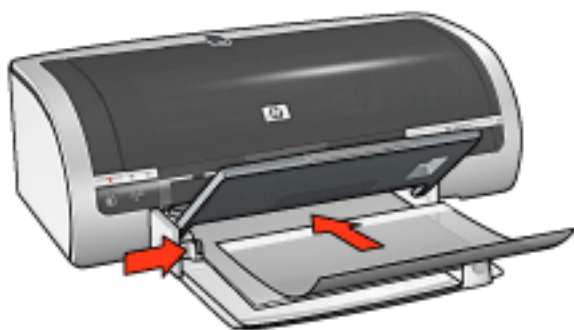
transparencies

guidelines

- For great results, use HP brand inkjet transparency film.
- In tray capacity: Up to 20 sheets

preparing to print

1. Raise the Out tray, then remove all paper from the In tray.
2. Slide the paper width guide all the way to the left, then pull out the paper length guide.
3. Place the transparencies in the In tray, with the printable side down and the adhesive strip facing up and toward the printer.



4. Carefully push the transparencies into the printer until they stop so that none of the adhesive strips catch on one another.
5. Slide the paper guides *firmly* against the edge of the transparencies.
6. Lower the Out tray.

printing

1. Open the [Printer Properties](#) dialog box, then select the following:

tab	setting
Paper/ Quality	Source is: Upper Tray Type is: Appropriate transparency film

2. Select any other desired [print settings](#), then click **OK**.

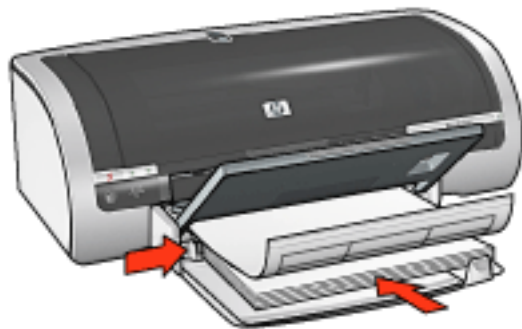
labels

guidelines

- Use only paper labels that are designed specifically for inkjet printers.
- Use only full sheets of labels.
- Verify that the labels are not sticky, wrinkled, or pulling away from the protective backing.
- Do not use plastic or clear labels. The ink will not dry on these labels.
- In tray capacity: Up to 20 sheets

preparing to print

1. Raise the Out tray, then remove all paper from the In tray.
2. Slide the paper width guide all the way to the left, then pull out the paper length guide.
3. Fan the edges of the label sheets to separate them, then align the edges.
4. Place the label sheets in the In tray with the label side down. Push the sheets into the printer until they stop.



5. Slide the paper guides *firmly* against the edge of the sheets.
6. Lower the Out tray.

printing

1. Open the [Printer Properties](#) dialog box, then select the following:

tab	setting
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Paper/ Quality	Size is: Letter or A4 Source is: Upper Tray Type is: Automatic or Plain Paper
---------------------------	--

2. Select any other desired [print settings](#), then click **OK**.

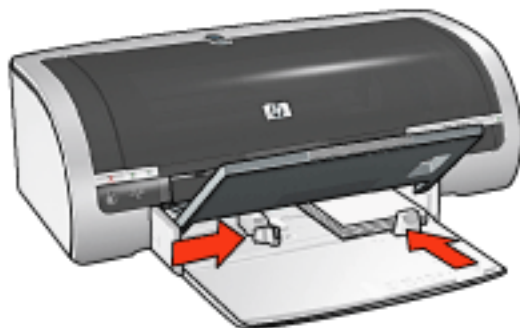
index cards and other small media

guidelines

- Use only cards and small media that meet the printer's paper size specifications. For specifications, see the *reference guide* that came with the printer.
- For instructions on borderless printing, click [here](#).
- In tray capacity: Up to 60 cards

preparing to print

1. Raise the Out tray, then remove all paper from the In tray.
2. Slide the paper width guide all the way to the left, then pull out the paper length guide.
3. Place the cards, with the printable sides down and the short sides pointing towards the printer, in the right side of the In tray. Push the cards into the printer until they stop.



4. Slide the paper guides *firmly* against the cards.
5. Lower the Out tray.

printing

1. Open the [Printer Properties](#) dialog box, then select the following:

tab	setting
------------	----------------

Paper/ Quality	Source is: Upper Tray Size is: Appropriate paper size Type is: Appropriate paper type Print Quality: Normal or Best
---------------------------	--

2. Select any other desired [print settings](#), then click [OK](#).

greeting cards

guidelines

- Unfold pre-folded cards, then place them in the In tray.
- For great results, use HP Greeting Card Paper.
- In tray capacity: Up to 20 greeting cards

preparing to print

1. Raise the Out tray, then remove all paper from the In tray.
2. Slide the paper width guide all the way to the left, then pull out the paper length guide.
3. Fan the edges of the greeting cards to separate them, then align the edges.
4. Place the greeting cards in the In tray, with the side to be printed facing down. Push the cards into the printer until they stop.



5. Slide the paper guides *firmly* against the paper.
6. Lower the Out tray.

printing



If your software program includes a greeting card printing feature, follow the instructions provided with the software program. Otherwise, follow the instructions below.

1. Open the [Printer Properties](#) dialog box, then select the following:

tab	setting
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Paper/ Quality	Size is: Appropriate card size Source is: Upper Tray Type is: Appropriate card type
---------------------------	--

2. Select any other desired [print settings](#), then click **OK**.

hagaki

guidelines

- Use only cards and small media that meet the printer's paper size specifications. For specifications, see the *reference guide* that came with the printer.
- For instructions on borderless printing, click [here](#).
- In tray capacity: Up to 60 cards

preparing to print

1. Raise the Out tray, then remove all paper from the In tray.
2. Slide the paper width guide all the way to the left, then pull out the paper length guide.
3. Place the cards, with the printable sides down and the short sides pointing towards the printer, in the right side of the In tray. Push the cards into the printer until they stop.



4. Slide the paper guides *firmly* against the cards.
5. Lower the Out tray.

printing

1. Open the [Printer Properties](#) dialog box, then select the following:

tab	setting
------------	----------------

Paper/ Quality	Source is: Upper Tray Size is: An available hagaki or borderless hagaki card size Type is: An available hagaki paper type Print Quality: Normal or Best
---------------------------	--

2. Select any other desired [print settings](#), then click [OK](#).

photographs

guidelines

- For outstanding results, use HP brand photo paper.
- For high-quality results, use a high-resolution print setting, install a photo print cartridge in the printer, and set the [HP digital photography options](#).
- For maximum fade resistance, use HP Premium Plus Photo Paper and install a [photo print cartridge](#) in the printer.
- For instructions on borderless printing, click [here](#).
- For information on preventing photo paper from curling, click [here](#).
- For information on various photo printing technologies, click [here](#).
- In tray capacity: Up to 20 sheets

preparing to print

1. Raise the Out tray, then remove all paper from the In tray.
2. Slide the paper width guide all the way to the left, then pull out the paper length guide.
3. Verify that the photo paper is flat.
4. Do one of the following:
 - **Small photographs:** Place the photo paper into the right side of the In tray, with the printable side down and one of the short edges pointing towards the printer.

If you are using a photo paper that has a tear-off tab, verify that the tab is pointing away from the printer.



- **Large photographs:** Place the photo paper in the In tray with the printable side down.



5. Slide the paper guides *firmly* against the paper.
6. Lower the Out tray.

printing



If your software program includes a photo printing feature, follow the instructions provided with the software program. Otherwise, follow the instructions below.

1. Open the [Printer Properties](#) dialog box, then select the following:

tab	setting
Paper/ Quality	Size is: Appropriate photo paper size Source is: Upper Tray Type is: Appropriate HP photo paper type Print Quality: Normal , Best , or Maximum dpi hp Digital Photography : Desired photo enhancement options

2. Select any other desired [print settings](#), then click **OK**.

storing and handling photo paper

Follow these instructions to maintain the quality of your HP brand photo paper.

storage

- Keep unused photo paper in a resealable plastic bag, in the box in which it was originally packaged. Store the packaged photo paper on a flat surface in a cool place.
- When you are ready to print, remove only the paper that you plan to use immediately. When you have finished printing, return any unused photo paper to the plastic bag.
- Do not leave unused photo paper in the printer's paper tray. The paper may start to curl, which can reduce the quality of your photographs.

handling

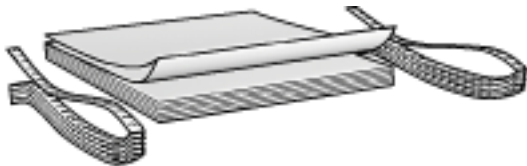
- Always hold photo paper by the edges. Fingerprints on photo paper can reduce print quality.
- If the corners of the photo paper curl more than 10 mm or 3/8 inch, flatten the paper by putting it in the resealable storage bag, then rolling the bag on a table edge until the paper is flat.

Photo paper should be flat before printing.

banners

guidelines

- Use HP banner paper for great results.
- Remove any perforated strips from the banner paper before loading it in the In tray.



- In tray capacity: Up to 20 continuous sheets

preparing to print

1. Raise the Out tray, then remove all paper from the In tray.
2. Slide the paper width guide all the way to the left, then pull out the paper length guide.



Do not unfold the Out tray extension stop.

3. Place the banner paper in the In tray so that the unattached edge is on top of the paper stack and pointing toward the printer.



1. unattached edge

4. Slide the paper width guide *firmly* against the paper.
5. Lower the Out tray.

printing



If your software program includes a banner printing feature, follow the instructions provided with the software program. Otherwise, follow the instructions below.

1. Open the [Printer Properties](#) dialog box, then select the following:

tab	setting
Paper/ Quality	Size is: Letter or A4 Source is: Upper Tray Type is: hp banner paper

2. Select any other desired [print settings](#), then click **OK**.

iron-on transfers

guidelines

- Use HP Iron-on Transfers for great results.
- When printing a mirror image, the text and the pictures are horizontally reversed from what appears on the computer screen.



- In tray capacity: Up to 150 sheets

preparing to print

1. Raise the Out tray, then remove all paper from the In tray.
2. Slide the paper width guide all the way to the left, then pull out the paper length guide.
3. Place the iron-on transfer paper in the In tray with the printable side down. Push the paper into the printer until it stops.



4. Slide the paper guides *firmly* against the paper.
5. Lower the Out tray.

printing



If your software program includes an iron-on transfer printing feature, follow the instructions provided with the software program. Otherwise, follow the instructions below.

1. Open the [Printer Properties](#) dialog box, then select the following:

tab	setting
Paper/ Quality	Size is: Appropriate paper size Source is: Upper Tray Type is: hp iron-on transfer Print Quality: Normal or Best
Basics	Orientation: Mirror Image

2. Select any other desired [print settings](#), then click **OK**.

calibrating print cartridges

The printer automatically calibrates the print cartridges after a new print cartridge is installed. You can also calibrate the print cartridges at other times to ensure optimal print quality.

To calibrate print cartridges:

1. Load a stack of plain white paper in the In tray.
2. Go to printer maintenance.
3. Click [Calibrate Printer](#).
4. Click [Calibrate](#), then follow the onscreen instructions.

manually cleaning the print cartridges

If the printer is used in a dusty environment, a small amount of debris may accumulate on the print cartridge contacts.

gathering cleaning supplies

You will need the following items to clean the print cartridges.

- Distilled water (tap water may contain contaminants that can damage the print cartridge)
- Cotton swabs or other soft, lint-free material that will not stick to the print cartridge

Be careful not to get [ink on your hands or clothing](#) as you clean.

preparing to clean

1. Press the **Power** button to turn on the printer, then raise the printer cover.
2. Remove the print cartridges and place them on a piece of paper with the nozzle plate facing up.



Do not leave the print cartridges outside the printer for more than 30 minutes.

cleaning instructions

1. Lightly moisten a cotton swab with distilled water and squeeze any excess water from the swab.
2. Wipe the print cartridge copper contacts with the cotton swab.



Do not touch the print cartridge ink nozzles. Touching the ink nozzles will result in clogs, ink failure, and bad electrical connections.



1. clean only the copper contacts

Repeat this process until no ink residue or dust appears on a clean swab.

3. Insert the print cartridges in the printer, then close the printer cover.

removing ink from skin and clothing

Follow these instructions to remove ink from skin and clothing:

to remove ink from...	do this...
skin	Wash the affected area with an abrasive soap.
white fabric	Wash the fabric in cold water using chlorine bleach.
color fabric	Wash the fabric in cold water using sudsy ammonia.

Caution! Always use cold water to remove ink from fabric. Warm or hot water may set the ink color into the fabric.

ethernet problems

printer does not print

Print a network configuration page (for instructions, click [here](#)).

If the network configuration page **does not** print, verify the following:

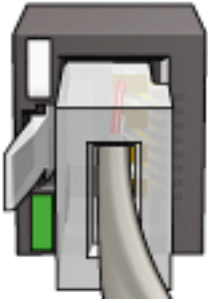
- The printer is set up and powered on
- The print cartridges are installed correctly (for instructions, click [here](#))
- The printer is on and the paper tray is loaded
- The printer is free of paper jams

If any of the above are problems, then click [here](#).

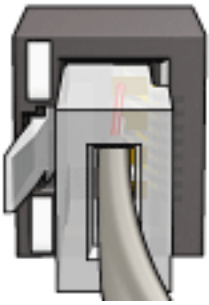
If the network configuration page **does** print, try the following steps:

link light

If the printer still does not print, then look at the Link light on the back of the printer:

if the link light is...	then do this...
<p>On</p> 	<p>Resend the document, then look at the Activity light (see below).</p>

Off




Verify the following:

- The [Ethernet cable](#) is securely connected to the printer.
- The network [hub](#), [switch](#), or [router](#) is on and working properly.
- The printer is connected to the network.

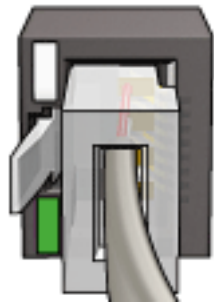
activity light

Follow these steps if the Link light is on, but the printer does not print:

1. Wait until the printer is idle.
2. Try to reprint the document.
3. Look at the Activity light on the back of the printer.

if the activity light is...	then do this...
<p>Flashing</p> 	<p>The Ethernet connection is operating correctly. Try these solutions again.</p>

Off



Verify the following:

- The printer is selected in the application from which you are trying to print.
- The computer is connected to the network.
- A personal software firewall might block communication between the printer and the computer. Follow these [steps](#).

cannot open the printer's embedded web server (EWS)

Verify the following:

- You are not using a phone cord to connect the printer to the network
- The [Ethernet cable](#) is securely connected to the printer
- The network [hub](#), [switch](#), or [router](#) is on and working properly
- The computer that you are using is connected to the network

If you still cannot access the printer's EWS, then follow these steps:

1. Print a network configuration page (for instructions, click [here](#)).
2. Find the printer's [IP address](#).
3. Launch your Internet browser.



Use Microsoft Internet Explorer 5.0 or higher or Netscape 4.75 or higher.

4. Enter the printer's IP address in the address box, then press [Enter](#).

If you still cannot connect to the printer's EWS, then follow these [steps](#).

a personal software firewall is blocking communication between the printer and the computer

The personal software firewall is a security program that protects a computer from intrusion. However, the personal firewall might block communication between the computer and the printer.

If you cannot communicate with the printer, try disabling the personal firewall. If you are still unable to communicate with the printer, then re-enable the firewall.

If disabling the firewall allows you to communicate with the printer, you might want to assign the printer a static IP address and then re-enable the firewall. To assign the printer a static IP address, see the *Network Guide* that came with the printer.

error messages

out of paper message

if the in tray or optional lower tray contains paper

1. Verify the following:
 - There is sufficient paper in the paper tray (at least ten sheets).
 - The paper tray is not overly full.
 - The paper stack is touching the back of the paper tray.
2. Slide the paper guides so they fit *firmly* against the edges of the paper.
3. Press the [Resume](#) button to continue printing.

if the in tray or optional lower tray is empty

1. Load paper in the tray.
2. Press the [Resume](#) button to continue printing.

the error message 'there was an error writing to USB port' appears

If you are using a USB printer cable, the printer may not be receiving correct data from another USB device or USB hub. Connect the printer directly to the USB port on the computer.

the error message 'there was an error writing to LPT1' appears

If the printer is connected to the computer with a USB cable, the cable may not have been attached before installing the software.

Uninstall, then reinstall, the software.

To uninstall the software, [click here](#).

the error message 'two-way communication cannot be established' or 'printer not responding' appears

The printer may not be able to communicate with the computer if the USB cable is too long.

If you receive this error message, ensure the USB cable is not greater than five meters (approximately 16 feet, five inches) in length.

paper problems

printer ejects the paper

If the printer ejects the paper, do one of the following:

- Move the printer away from direct sunlight. The printer may have been placed in direct sunlight which can affect the [Automatic Paper-Type Sensor](#).
- Select a paper type other than [Automatic](#).
- If you are performing a [color calibration](#), install both the tri-color and photo [print cartridges](#).
- If you are printing a borderless document and the Resume light and Print Cartridge Status light are flashing, follow these [guidelines](#).

other paper problems

- For information on clearing a paper jam, click [here](#).
- If an out of paper message appears, click [here](#).

calibrating color

Perform a color calibration only if the colors in photographs printed with the [photo print cartridge](#) are consistently tinted.

Before performing a color calibration, [calibrate the printer](#), then reprint your photograph. If the color is still tinted, then perform a color calibration.

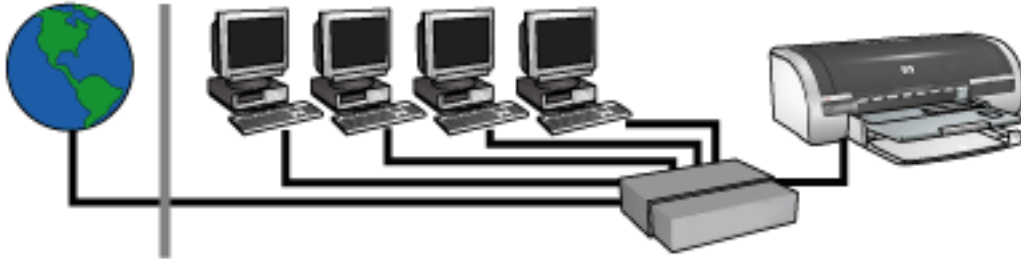
To calibrate color:

1. Load plain white paper in the In tray.
2. Verify that a [photo print cartridge](#) is installed in the printer.
3. Go to printer maintenance.
4. Click [Calibrate Color](#).
5. Click [Calibrate](#), then follow the onscreen instructions.

ethernet network examples

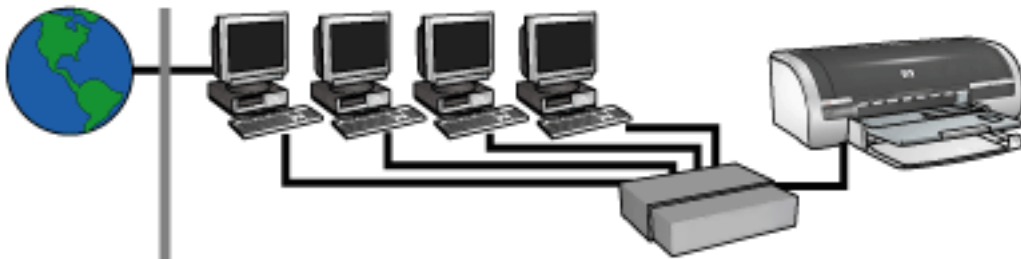
These are some common Ethernet network configurations:

shared internet connection with a router acting as a gateway



In this example, a [router](#) manages the network connections and acts as a [gateway](#) between the network and the Internet.

shared internet connection with a PC acting as a gateway



In this example, the network devices are connected to a [hub](#). A computer on the network acts as the [gateway](#) between the network and the Internet. The gateway computer uses [Windows Internet Connection Sharing \(ICS\)](#) to manage the network connections and provide Internet access to the other devices.

DSL or cable internet connection without a gateway



This example looks similar to the first example. However, in this example, the network devices are connected to a [hub](#), rather than a [router](#). The hub is directly connected to the Internet.

Caution! HP does not recommend this configuration. If possible, use a gateway to manage your network's Internet access in order to limit exposure to viruses and guard against unwanted entry.

ethernet network without an internet connection



In this example, the network devices are connected to a [hub](#). Devices use [AutoIP](#) to obtain IP addresses.

installing the printer on an ethernet network

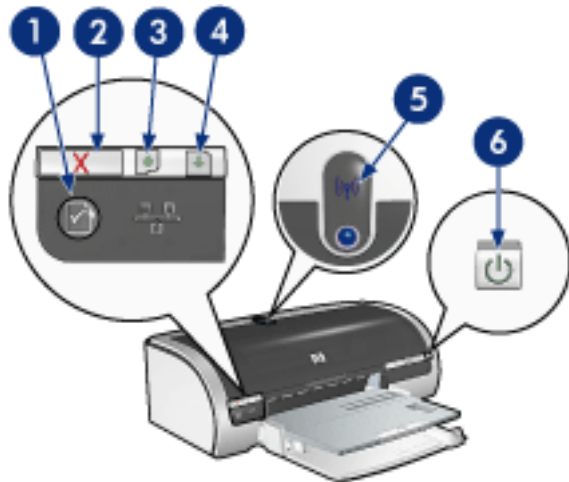
Installing the printer on an Ethernet network is a two-part process.

First you must connect the printer to the network. Then you must install the printer software on each computer that will use the printer.

- [connecting the printer to an ethernet network](#)
- [installing the printer software](#)

buttons and lights

Use the printer buttons to turn the printer on and off, cancel a print job, and restart a print job. The printer lights give you visual cues about the status of the printer.



1. network button 2. print cancel button 3. print cartridge status light 4. resume button 5. wireless status light 6. power button

network button

For a description of the Network button, click [here](#).

print cancel button

Pressing the Print Cancel button cancels the current print job.

print cartridge status symbol and light

The Print Cartridge Status light turns on or [flashes](#) when a print cartridge needs service.

resume button and light

The Resume light flashes when an action is required such as loading paper or clearing a paper jam. When the problem is solved, press the Resume button to continue printing.

wireless status light

For a description of the wireless status light, click [here](#).

power button and light

The Power button turns the printer on and off. It may take a few seconds for the printer to turn on after pressing the Power button.

The Power light flashes when the printer is processing.

Caution! Always use the Power button to turn the printer on and off. Using a power strip, surge protector, or a wall-mounted switch to turn the printer on and off may cause printer failure.

getting started

For an overview of printer features and *optional* accessories, click [here](#).

Click the appropriate topic below for a description of a printer feature:

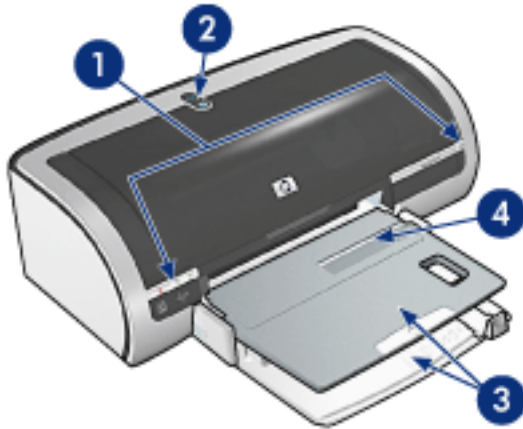
- [buttons and lights](#)
- [paper trays](#)
- [print cartridges](#)
- [automatic paper-type sensor](#)
- [ink-backup mode](#)

Click the appropriate topic below for a description of an *optional* printer accessory:

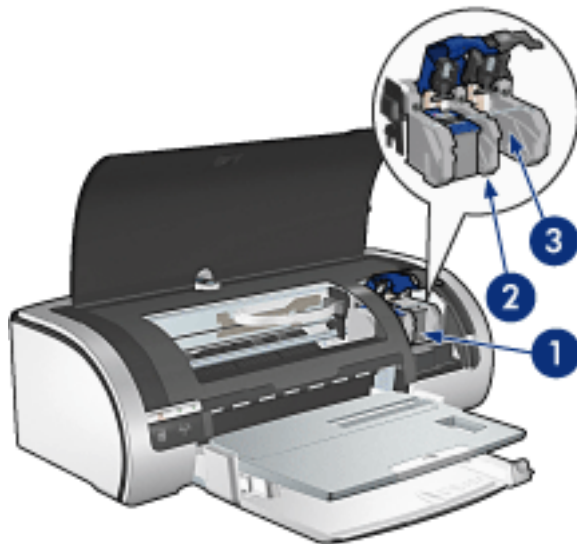
- [two-sided printing accessory](#)
- [250-sheet plain paper tray accessory](#)

printer features

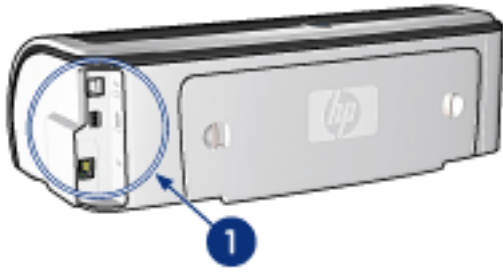
The HP printer has several features to make printing easier and more efficient.



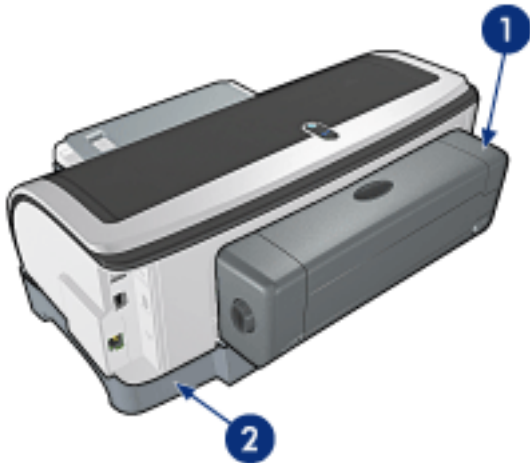
1. [buttons and lights](#)
2. [wireless status light](#)
3. [paper trays](#)
4. [single envelope slot](#)



1. [print cartridges](#)
2. [ink-backup mode](#)
3. [automatic paper type sensor](#)



1. [connectivity and networking](#)



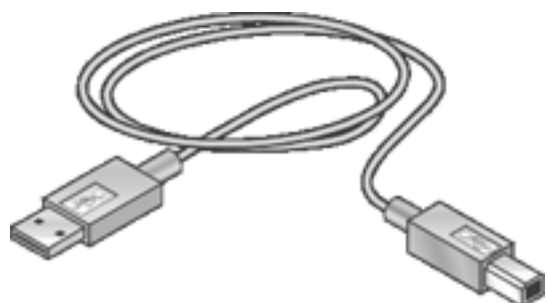
1. [two-sided printing accessory](#) (optional)
2. [250-sheet plain paper tray accessory](#) (optional)

connectivity

- [USB](#)
- [wired and wireless networking](#)

USB

The printer connects to the computer with a Universal Serial Bus (USB) cable. The computer must be running Windows 98 or later to use a USB cable.



For instructions on connecting the printer with a USB cable, see the *reference guide* that came with the printer.

wired and wireless networking

Networking options:

- [wired ethernet networking](#)
- [wireless networking](#)

Other networking topics:

- [network button](#)
- [network configuration page](#)
- [embedded web server \(EWS\)](#)
- [resetting the printer to the factory defaults](#)
- [glossary](#)

maintenance

- [replacing print cartridges](#)
- [calibrating print cartridges](#)
- [calibrating color](#)
- [automatically cleaning print cartridges](#)
- [manually cleaning the print cartridges](#)
- [maintaining print cartridges](#)
- [storing and handling photo paper](#)
- [maintaining the printer body](#)
- [removing ink from skin and clothing](#)
- [printer tools](#)

automatically cleaning print cartridges

If your printed pages are missing lines or dots, or if they contain ink streaks, the print cartridges may be low on ink or may need to be cleaned.

Click [here](#) to check the print cartridge ink levels.

If the print cartridges are not low on ink, follow these steps to clean the print cartridges automatically:

1. Go to printer maintenance.
2. Click [Clean Cartridges](#).
3. Click [Clean](#), then follow the onscreen instructions.

If your printouts are still missing lines or dots after cleaning, [replace](#) the print cartridges.

Caution! Clean print cartridges only when it is necessary.
Unnecessary cleaning wastes ink and shortens the life of the cartridge.

maintaining the printer body

Because the printer ejects ink onto the paper in a fine mist, ink smudges will eventually appear on the printer case and adjacent surfaces. To remove smudges, stains, and/or dried ink from the exterior of the printer, use a soft cloth moistened with water.

When cleaning your printer, keep these tips in mind:



- **Do not** clean the interior of the printer. Keep all fluids away from the interior.
- **Do not** use household cleaners or detergent. In the event that a household cleaner or detergent is used on the printer, wipe the printer's exterior surfaces with a soft cloth moistened with water.
- **Do not** lubricate the support rod that the print cartridge cradle uses to slide back and forth. Noise is normal when the cradle moves back and forth.

printer tools

The printer software contains a number of useful tools to enhance the printer's performance.

Use the printer tools to:

- View estimated ink levels.
- Clean the print cartridges.
- Calibrate the printer.
- Print a test page.
- Perform other functions as needed.

To access the tools, click [here](#).

troubleshooting

- [printer is not printing](#)
- [paper jam](#)
- [paper problems](#)
- [print quality is poor](#)
- [document is misprinted](#)
- [photos are not printing correctly](#)
- [borderless printing problems](#)
- [banners are not printing correctly](#)
- [error messages](#)
- [printer lights are on or flashing](#)
- [document prints slowly](#)
- [automatic two-sided printing problems](#)
- [if you continue to have problems](#)
- [ethernet problems](#)
- [wireless communication problems](#)

print quality is poor

streaks and missing lines

If your printed pages are missing lines or dots or if streaks appear, the print cartridges may be low on ink or may need to be [cleaned](#).

print is faded

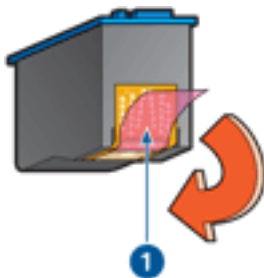
- Verify that a black print cartridge is installed.

If the black text and images on your printouts are faded, you may be printing using only the tri-color print cartridge. Insert a black print cartridge, in addition to the tri-color print cartridge, for optimal black print quality.

- Verify that neither of the print cartridges is low on ink.

If a print cartridge is low on ink, consider replacing the print cartridge. For the correct part numbers, see [print cartridges](#).

- Verify that the protective piece of plastic tape has been removed from the print cartridges.



1. plastic tape

- Consider selecting a higher print quality.

increase the ink volume

1. Open the [Advanced Features](#) dialog box.
2. Move the [Ink Volume](#) slider toward [Heavy](#).
3. Move the [Dry Time](#) slider toward [More](#).
4. Click [OK](#) > [OK](#).

blank pages print

- The protective piece of plastic tape may still be attached to the print

cartridges. Verify that the plastic tape has been removed from the print cartridges.

- The print cartridges may be [out of ink](#). Replace one or both empty print cartridges.

too much or too little ink appears on the page

adjust the ink volume and dry time

1. Open the [Advanced Features](#) dialog box.
2. Move the [Ink Volume](#) slider toward [Light](#) or [Heavy](#).



If you increase the ink volume, move the [Dry Time](#) slider toward [More](#) to avoid smearing the ink.

3. Click [OK](#), then click [OK](#) again.

select a specific paper type

1. Open the [Printer Properties](#) dialog box.
2. Select the [Paper/Quality](#) tab.
3. In the [Type is](#) field, select an appropriate paper type. Do not select [Automatic](#).

document is misprinted

text and images are misaligned

If the text and images on your printouts are misaligned, then [calibrate](#) the printer.

document is printed off-center or at an angle

1. Verify that the paper is correctly placed in the In tray or optional lower tray.
2. Verify that the paper guides fit *firmly* against the paper.
3. Reprint the document.

parts of the document are missing or printed in the wrong place

Open the [Printer Properties](#) and confirm the following options:

tab	setting
Basics	Orientation: Verify the appropriate orientation
Paper/ Quality	Size is: Verify the appropriate paper size
Effects	Scale to Fit: Select to scale text and graphics to the paper
Finishing	Poster Printing: Verify that Off is selected

envelope is printed at an angle

1. Slide the flap inside the envelope before loading it in the printer.
2. Confirm that the paper guides fit *firmly* against the envelope.
3. Reprint the envelope.

printout does not reflect new print settings

The printer's default settings may differ from the software application's print settings. Select the appropriate print settings within the software application.

photos are not printing correctly

check the paper trays

1. Verify that the photo paper is placed in the In tray with the printable side down.
2. Slide the paper forward until it stops.
3. Slide the paper guides *firmly* against the paper.

check the printer properties

Open the [Printer Properties](#) dialog box and verify the following options:

tab	setting
Paper/ Quality	Size is: Appropriate size Type is: Photo Paper Print Quality: Best

colors are tinted or incorrect

If colors in photographs appear tinted or incorrect, follow these steps:

1. [Calibrate](#) the print cartridges.
2. Reprint the photograph.
3. If colors are still tinted or incorrect, [calibrate the color](#).
A photo print cartridge must be installed for color calibration.
4. Reprint the photograph.
5. If colors are still tinted or incorrect, then open the [Printer Properties](#) dialog box, select the [Color](#) tab, then do the following:
 - o If the colors are too yellow, move the [Color Tone](#) slider towards [Cooler](#).
 - o If the colors are too blue, move the [Color Tone](#) slider towards [Warmer](#).
6. Reprint the photograph.
7. If colors are still tinted or incorrect, [calibrate](#) the print cartridges.

part of the photograph is faded

fading occurs on the edges of a printout



Verify that photo paper is not curled. If the photo paper is curled, place the paper in a plastic bag and gently bend it the opposite direction of the curl until the paper lies flat. If the problem persists, then use photo paper that is not curled.

For instructions on preventing photo paper from curling, click [here](#).

fading occurs near the edges of a printout



If fading occurs approximately 1 to 2.5 inches from the edge of a photograph, try the following:

- Install a [photo print cartridge](#) in the printer.
- Open the [Printer Properties](#) dialog box, select the [Paper Type/Quality](#) tab, then set the [Print Quality](#) to [Maximum dpi](#).
- Rotate the image [180 degrees](#).

banners are not printing correctly

check the paper tray

- Unfold and refold the paper when several sheets feed into the printer at once.
- Confirm that the unattached edge of the banner paper stack is on top and facing the printer.
- Verify that the correct paper for banner printing is used.

check the printer properties

Open the [Printer Properties](#) dialog box and verify the following settings:

tab	setting
Paper/ Quality	Size is: Appropriate banner size Type is: hp banner paper

check the software

- Verify that the software application you are using prints banners. Not all software applications print banners.
- If gaps appear at the ends of the sheets, verify that the printer software is operating correctly.

document prints slowly

Several variables can slow the printer's performance.

multiple software applications are open

The computer does not have sufficient resources for the printer to print at its optimum speed.

To increase printer speed, close all unnecessary software applications when printing.

complex documents, graphics, or photographs are printing

Documents containing graphics or photographs print slower than text documents.

If your computer does not have enough memory or disk space to print the document under normal conditions, you can use Low Memory Mode. Using this option may reduce the quality of the printout. Low Memory Mode also disables 4800 x 1200 optimized dpi printing.

To activate Low Memory Mode:

1. Open the [Printer Properties](#) dialog box.
2. Click the [Basics](#) tab, then click the [Advanced Features](#) button.
3. Select [Low Memory Mode](#).
4. Print the document.

best or maximum dpi print mode is selected

The printer prints slower when [Best](#) or [Maximum dpi](#) is selected as the print quality. To increase the printer speed, select a different [print quality](#) mode.

printer driver is outdated

An outdated printer driver may be installed.

For information about updating the printer driver, [click here](#).

automatic paper type option is enabled

When the automatic paper type option is enabled, it takes a few seconds for the printer to scan the first page of the print job to determine the appropriate paper type.

To increase the print speed, turn off the [Automatic Paper-Type Sensor](#).

two-sided documents are printing

Printing two-sided documents takes more time than printing single-sided documents.

To increase speed, open the [Advanced Features](#) dialog box, then move the [Dry Time](#) slider to [Less](#).

computer does not meet system requirements

If your computer does not have enough RAM or a large amount of free space on the hard drive, the printer processing time will be longer.

1. Verify that the computer's hard disk space, RAM, and processor speed meet [system requirements](#).
2. Free up space on the hard drive.

printer is in ink-backup mode

The printer may print more slowly if it is in [ink-backup mode](#).

To increase the print speed, use two print cartridges in the printer.

minimum system requirements

Your computer must meet the following minimum requirements:

Microsoft Windows XP

Minimum processor speed: Pentium II 233 MHz

Required RAM: 128 MB

Required free hard disk space: 175 MB*

Microsoft Windows 98 or Me

Minimum processor speed: Pentium 150 MHz

Required RAM: 32 MB

Required free hard disk space: 175 MB*

Microsoft NT 4.0 or 2000 Professional

Minimum processor speed: Pentium II 133 MHz

Required RAM: 64 MB

Required free hard disk space: 175 MB*

* If you are printing photographs, or printing very high resolution (4800 x 1200 optimized dpi), you must have at least 400 MB of temporary hard disk space available.



Windows NT does not support a USB connection.

automatic two-sided printing problems

(if optional Two-Sided Printing Accessory is attached to printer)

paper jam occurs inside the two-sided printing accessory

See [paper jam](#) for instructions.

option for two-sided printing cannot be selected

Verify the following:

- The Two-Sided Printing Accessory (duplexer) is attached to the printer.
- The duplexer is [enabled](#) in the printer software.
- The media type and size selected in the [Paper/Quality](#) tab are supported by the duplexer.

See the documentation that came with the duplexer for a list of supported media types and sizes.

only one side of the page prints when the two-sided printing option is enabled

Verify the following:

- The [correct print options](#) are set in both the printer software and the application you are using.
- The photo paper is not curled, if you are printing on two-sided photo paper. Photo paper should be flat before printing. See [storing and handling photo paper](#) for more information.
- The media type and size selected in the [Paper/Quality](#) tab are supported by the duplexer.

See the documentation that came with the duplexer for a list of supported media types and sizes.

If the media type or size is not supported by the duplexer, you can print the document using the [manual two-sided printing feature](#).

binding margin is in the wrong place

1. Open the [Printer Properties](#) dialog box.
2. Select the [Finishing](#) tab.
3. Verify that:

- **Flip Pages Up** is selected for binding along the top (tablet binding).
- **Flip Pages Up** is *not* selected for binding along the side (book binding).

For more information, see [two-sided printing](#).

paper size changes when the two-sided printing option is selected

The paper size is not supported by the duplexer.

See the documentation that came with the duplexer for a list of supported paper sizes.

if you continue to have problems

If you continue to have problems after investigating the troubleshooting topics, shut down, then restart your computer.

If you still have problems after restarting your computer, go to HP customer support at **www.hp.com/support**.

specifications

- [printer specifications](#)
- [minimum system requirements](#)
- [environmental statement](#)
- [print cartridge recovery](#)

printer specifications

See the *reference guide* packaged with your printer for complete printer specifications, including:

- Types, sizes, and weights of paper and other printing media that can be used with your printer
- Print speeds and resolutions
- Power requirements

environmental statement

Hewlett-Packard continuously improves the design processes of its deskjet printers to minimize the negative impact on the office environment and on the communities where printers are manufactured, shipped, and used.

reduction and elimination

Paper use: The printer's two-sided printing capability reduces paper usage and the resulting demands on natural resources. This printer is suited for the use of recycled papers in accordance with DIN 19 309.

Recycled paper: All paper documentation for this printer is printed on recycled paper.

Ozone: Ozone-depleting chemicals such as CFCs have been eliminated from Hewlett-Packard's manufacturing processes.

recycling

Design for recycling has been incorporated into this printer. The number of materials has been kept to a minimum while ensuring proper functionality and reliability. Dissimilar materials have been designed to separate easily. Fasteners and other connections are easy to locate, access, and remove using common tools. High priority parts have been designed to access quickly for efficient disassembly and repair.

Printer packaging: The packaging materials for this printer have been selected to provide maximum protection for the least cost possible, while attempting to minimize environmental impact and facilitate recycling. The rugged design of the HP Deskjet printer assists in minimizing both packaging materials and damage rates.

Plastic parts: All major plastics and plastic parts are marked according to international standards. All plastic parts used in the printer housing and chassis are technically recyclable and all use a single polymer.

Product longevity: To ensure the longevity of your HP Deskjet printer, HP provides the following:

- **Extended warranty:** Details can be found in the *reference guide* that came with your printer.
- **Replacement parts and consumables** are available for three (3) years after production has stopped.
- **Product take-back:** To return this product to HP at the end of its useful life, go to www.hp.com/recycle. To return empty print cartridges to HP, see [print cartridge recovery](#).



The extended warranty and product take-back options are not available in all countries/regions.

energy consumption

Energy consumption in standby mode: See the *reference guide* for energy consumption specifications.

Energy consumption in off-mode: When the printer is off, an amount of energy is still being consumed. Energy consumption can be prevented by turning the printer power off, then disconnecting the end of the printer power cord from the electrical source.

user's guide other languages

The User's Guide information is available in Adobe Acrobat format in the following language: